KINGDOM OF MOROCCO

PRIMER MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING AND THE TRAINING OF SENIOR GRADES

Morocco. Ministère des affaires économiques, du plan et de la formation des cadres.

FIVE YEAR PLAN
1968 - 1972

VOLUME I

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PRAISE BE TO GOD

We, Amin El Mouminine

TO OUR MINISTERS

You will be well aware of the utmost importance We attach to the national Plans and of the special interest We take in the various projects deriving therefrom.

By their implementation We aim both to promote and to render more widespread the Nation's development in order that the prosperity to which We aspire may be achieved. When We drew up the Three Year Plan which this year comes to its conclusion We ensured that priority would be given therein to those projects, the achievement of which would increase our resources in the fields of agriculture, industry and tourism and which would provide us with the senior grades We lack.

We have therefore decided to pursue these same priorities and to build on their foundations Our next Plan which We desire to conform to these present Directives which are intended to facilitate your task and to achieve more effectively the objectives which We have laid down.

A not inconsiderable number of projects incorporated under the Three Year Plan have, thanks be to God, been successfully completed. The overall objectives however, have not hitherto been entirely achieved.

We have therefore decided to adopt a different procedure which will take greater account of the realities and of the needs of the country and which will accord a greater interest to the specific problems of the various regions of Our Kingdom in order that Our economic expansion may be achieved to the greater well-being of all, having drawn the lessons of the experience We have acquired from previous Plans.

This in no way implies the abandonment of major national projects. We desire simply that the future Plan should embrace projects both of a national and a regional character within a fully comprehensive overall programme,

Among the projects to which we have given Our agreement for incorporation in the next Plan, having submitted them to the Higher Council for Planning, those projects which are of a national character will be specified, determined and clearly outlined and the others will find their basis and purpose in the regional requirements and needs.

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To this end therefore it will be necessary to draw up a map of the Kingdom comprising regional delimitations on the basis of bringing together neighbouring provinces possessing similar infra-structures and complementary economies.

The Plan We are proposing, however, should only incorporate those projects the profitability of which is guaranteed. Furthermore, only those schemes in respect of which the promoting Department shall assume the responsibility for utilising such credits as may be allocated to it for the duration of the corresponding Plan shall be entitled to financial grants. Finally, it is absolutely essential that the various Departments take account in their estimates only of the projects they will be in a position to carry out and bring to a successful conclusion.

Preparation of such a Plan is only possible if preliminary investigations are conducted thoroughly and zealously. Once a map has been drawn up fixing the regional delimitations it will be incumbent upon you to visit the areas in question and establish contacts in the regional capitals in order to acquaint yourselves with the real needs, to compare the results of your investigations with actual realities and the developments required.

The dialogue thus instigated between you and Our subjects, your fellow citizens, will doubtless assist you better to appreciate the realities and will thereby facilitate you in your duties, enabling you to make the most favourable decisions. Any Plan, indeed, would have little value which ignored actual realities and needs and which did not attempt to find adequate solutions to the particular problems of the country.

Such is Our will and such is the procedure to follow and We expect of you loyal observance of both in your investigations and in your work.

May God the Almighty grant the complete success of our efforts for the greater well-being of Our People. May He also assist you and lead you along the right road.

Done in Rabat, on the 9th October 1967

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SECTION I - THE ECONOMIC CONTEXT

CHAPTER I - The Economic Situation on the Eve of the Five Year Plan 1968-1972

Let us first study the economic situation on the eve of the Five Year Plan from the point of view of the main groupings representing the country's activities: output, consumption, savings, investment and employment. More detailed analysis of the economic sectors will provide the means of assessing the implementation of the Three Year Plan.

Part 1 - The general economic situation

In spite of undoubted progress made, the economic achievements of previous Plans remain relatively modest in respect of output, the standard of living, investment, employment and savings.

The first Five Year Plan had relatively ambitious aims for the gross national product, providing for an annual growth of 6.2% between 1960 and 1964. The Three Year Plan was less ambitious - 3.5%; in practice the latter rate was the more realistic and was much closer to actual results; discounting the fluctuating element of good or bad harvests, the gross national product increased between 1960 and 1967 by approximately 3% per annum. Analysis by sector shows that this growth was principally achieved in industry and in the building and public works sector; this is certainly a very noteworthy achievement, first because the industrial progress is reflected in the G.N.P. and secondly because the growth in building and public works reflects the rise in investment and thus augures well for the future growth of the G.N.P.

Agricultural growth under previous Plans will probably be found to have scarcely exceeded an average annual rate of 1.5% mainly as a result of the climatic hazards. Where such an important sector of the G.N.P. shows such a slow growth rate it may readily be appreciated why the gross national product itself is increasing so slowly.

At the same time, overall consumption in the private sector during this period (1960 to 1967) increased by no more than 3%; with the population increasing at a scarcely faster rate, the average standard of living of Morocco's people has remained practically at a standstill; in fact, the Moroccanisation programme has resulted - at a constant average standard of living - in a small rise in consumption by Moroccan nationals, a rise which may be assessed very approximately at 1% per annum. Turning now to investment, progress appears at first sight to be fairly favourable. Investment in equipment, building and public works rose by a little more than 6% per annum, or appreciably faster than the G.N.P.; thus the investment index (the share of the G.N.P. devoted to investments) increased under the two previous Plans, rising from 11% in 1960 to 13.5% during the Three Year Plan. These results, encouraging as they are, are nonetheless poor; in seven years the investment index only rose by 2.5 points (from 11 to 13.5%); in order better to appreciate the achievement made, it is also desirable to distinguish on the one hand between directly productive net investment and, on the other hand, investment in housing and community facilities; between 1960 and 1967 material equipment rose from 360 to 720 million Dirhams, whereas investment in building and public works increased from 560 million to 1,120 million Dirhams, or an increase of 360 million Dirhams for equipment, against 560 million Dirhams for building and public works; a considerable proportion of the latter class of investment is directly productive (particularly dams) although their effect on the G.N.P. is only felt in the long-term; in short both the structure of the accumulation of capital during the past years and also its volume gave little hope for any appreciable increase in the gross national product.

With regard to employment, no sufficiently detailed statistics are available for the progress in the situation over the past years to be accurately measured. The growth in the population and the drift from the land have brought about a considerable demand for new employment which may be estimated at an average of approximately 140,000 per year. The increase in offers of employment, however, has remained limited (particularly jobs in Industry generally, Power, Mining, Building and Public Works). The institution of the National Development, the increase in the administrative programmes and Moroccanisation have, however, provided a considerable number of additional offers of employment.

(Finally: financing the economy; the principal factor to be noted is the increasing external debt. In seven years, between 1960 and 1966, external public aid, discounting amortisation, rose to 1.9 thousand million Dirhams; over the same period Morocco's assets abroad decreased by 0.34 thousand million Dirhams; it is true that the poor harvests of 1961 and 1966 necessitated drawing on external assets and incurring additional debts, but the percentage of output devoted to savings varied little, at least up until 1965. In 1964 Morocco saved no more than in 1960. This explains why the Government had to take very strong measures at the end of 1964. The beginning of the Three Year Plan was thus marked by a considerable improvement in the situation. In fact, the austerity budget, the measures for safeguarding the Balance of Payments and the maintenance of sugar prices placed the Treasury in a stronger position and increased foreign reserves and savings.

Necessary and salutary, however, as this policy of financial austerity was, it is only the beginning and the prime objective is still the economic and social development of Morocco.

It should therefore be emphasised that certain development projects, although still having only a limited effect on the country's economy, point the direction in which results may be rapidly obtained and are therefore in this respect hopeful signs. (These projects are concerned primarily with agriculture, tourism, the National Development and industrialisation. Apart from these programmes with a direct economic implication, an enquiry into government programmes should give priority consideration to the policies of education and training of senior grades.)

Part II - Government programme and assessment of the Three Year Plan

1. - Agriculture

Considerable achievements have been made by the public authorities in the agricultural field. On the one hand studies and very generalised work which, to a certain extent, constitute a long-term investment and on the other, specific programmes involving certain well-defined agricultural projects.

a) Long-term investment

Four distinct categories come under this heading:

- development studies
- research and experimentation
- the protection and improvement of the national heritage
- water engineering works.

Many development studies involving some 3 million hectares which have been very intensively investigated, have been carried out either by State bodies or international organisations. The areas thus favoured which will now frequently be able to cut out the preliminary stages of projects, starting directly at the operational stage, are: Sebou, Gharb, Lower Moulouya, Loukkos, Abda Doukkala, Tadla, Beni-Moussa West, Haouz-Tessaout, Ziz Tafilalet and the Western Riff.

Positive results have been achieved in the field of agricultural research, where Government schemes are preponderant. The National Institute of Agricultural Research in particular has carried out considerable work on investigations into farming methods, selection of seeds, soil tests, etc. The gradual penetration of modern farming methods into existing systems and their more generalised use constitute the next stage to be achieved, hand in hand with continuing research work.

The Government's efforts in respect of protecting and improving the national heritage, where schemes under present conditions can only be on a countrywide basis, have been of prime importance, linked particularly with the institution of the National Development. In view of the extent of the work to be carried out, however, these efforts are still not enough. The following operations have been carried out: soil protection and reinstatement, reafforestation, small- and medium-scale water engineering works, land clearing, clearing of stones, regrouping, pruning olive trees (more than a million have been expertly pruned).

Water enineering works have also been extensive. A dam building policy has been adopted which is a programme of considerable importance both for irrigation projects and soil protection (when upstream) and for power requirements. Between 1957 and 1966 the area of land irrigated by large-scale water engineering works, in other words endowed with main channels, was increased by approximately 100,000 hectares and current work in progress will bring in much more land besides. Attention, however, should be drawn to the need to complete the utilisation of irrigated land in order to derive the maximum benefit from the programme.

Between the same period approximately 40,000 hectares were added to the land effectively irrigated (put under water).

The effect of investment in water engineering works already completed is far from being exhausted and one of the first tasks of the Agricultural Commission was to find the resources and to plan the means for mobilising what are, to a certain extent, untapped reserves of productivity.

b) At the Government's instigation the setting up of new experimental cultivations has been tried out and these have produced promising results. They were mainly concerned with beetroot, cotton and market-garden products.

The experiment with beetroot is rich in the lessons to be learnt from it. Everything had to start completely from scratch because the peasant knew nothing whatsoever of this type of production. By contrast, however, the Government schemes met with no resistance based on other farming methods always having been used in the past. The operation was carefully planned and introduced in gradual stages. The State first carried out a major study followed by large scale experiments before launching the operation which was accompanied by a vigorous propaganda campaign aimed at the peasant farmer. Credits and harvest pre-payments were released at the opportune moment. There was a single and guaranteed market; the peasant had simply to send his crop to the sugar factory. The operation was completed successfully and was all the more encouraging as it was also a successful experiment in the use of agricultural products by industry. The area under cultivation at present accounts for more than 14,000 hectares; yield is good and the peasants generally are satisfied with this new production.

While the "beetroot" operation was conducted with persuasion as the essential ingredient, the development of cotton production, by contrast, was conducted by means of more direct methods of intervention. Where it had previously been cultivated, cotton was imposed as an obligatory crop rotation and the farming methods (ploughing, processing, etc.) were carried out by work centres on behalf of the peasant. By these means the area of cotton production has now reached nearly 20,000 hectares and the position is such that a harvest of 30,000 tons of raw cotton can be expected. This should provide in 1968 20,000 tons of seeds for the processing industries.

Unlike the previous two projects, market garden production has developed under the impetus of demand from foreign countries. Production has been carried out by the peasant farmers who have been assisted and advised by the general advisory centres which imported and controlled the seeds and advised the peasants on farming methods. This project covers approximately 150,000 hectares. In spite of the considerable above mentioned efforts, agricultural output scarcely increased at all. There are two main reasons for this:

Agricultural investment is on a very long-term basis and its effect is still not yet fully felt. It has also been found that full advantage has not always been taken of these investment (water engineering works for example). As will be seen below reforms are scheduled under the 1968-1972 Plan for reshaping the institutional and sociological framework in order to give the fullest

The delay as shown in the table is due to various causes:

- the late launching of the 1965 programme, which explains why the initial work could only be started around July; this delay is also partly due to the reorganisation of the administrative structures of the former O.N.I. and O.N.M.R. (National Irrigation Office and National Research Office) and to the setting up of the O.M.V.A. (Agricultural Development Offices);

- the lack of technical grades both at design and operational levels;

- the existing land tenure structures which frequently hinder the carrying out of internal equipment work.

- the time needed to finalise the policy of land apportionment and the practical modalities of allocating holdings.

- in certain cases no studies made or absence of specific projects.

The State programme is not measured solely in terms of carrying out investment programmes but also by the effective institution of reforms which appear to be needed for the development of the sector in question. In the agricultural field, while practically no progress has been made in respect of land tenure structures, the Agricultural Fund, by contrast, has been reorganised by the setting up of a network of local offices. The organisation of the State intervention services has also been completely reorganised by the setting up of the Regional Development Offices.

2. - The National Development

The National Development, instituted in July 1961, was responsible for utilising rural under-employed labour for utilising and developing the under-privileged areas of the Kingdom. In view of the scarcity of both capital and senior grades, the National Development confined itself to work which was technically simple, requiring abundant labour but which would nevertheless improve output (small-scale irrigation works, tree planting), the infrastructure (roads, tracks, community building) and also which would contribute to regional development (land clearance, clearing of stones, soil protection and reinstatement and reafforestation).

The National Development department has always striven to ensure maximum efficiency for each scheme; it thus laid down norms for each working day for each type of work; it thereby became possible to use 15 million working days per annum which, in terms of permanent employment, represents the equivalent of 60,000 jobs.

The National Development programme has therefore played a considerable part in reducing under-employment in rural areas. In five years, between 1961 and 1966, 430,000 tons of cereals and 140 million DH in wages were distributed. The principal achievements are the following:

Concerning productive development schemes: 66,000 hectares of soil protection and reinstatement, (S.P.R.), 60,000 hectares of reafforestation and the plantingof 120 million trees. Concerning small- and medium-scale water engineering works, 3,500 kilometres ofchannels;300 hydraulic devices, 250 irrigation reservoirs and 7 medium-scale branch dams have improved the traditional irrigation over approximately 30,000 hectares situated in the South and the provinces bordering on the Sahara. Finally, as far as the infrastructure is concerned: improvement works, maintenance and construction of roads and tracks covering 20,000 kilometres, 10,000 dwellings built (attempt to deal with the shanty-town problem, reconstruction after floods etc.) and construction of 2,400 classrooms and 1,400 teachers' houses enabling 450,000 more pupils to attend school.

The experiment thus proved positive and lasting and several lessons may be drawn from it.

- Under-employment constitutes a reserve of "working capital" provided its nature is understood and its sociological and technical features are retained.

- The National Development method, when conducted as an economic development project (and not as a battle against unemployment) is in a position to contribute to the technical equipment and development of Morocco. In many sectors it even represents the only possible action - and at minimum cost.

- Properly conducted, the National Development is frequently competitive and sometimes even less costly than the standard type of enterprise.

- The employment it provides and the work it achieves should reduce the drift from the land.

- An aspect just as important as the National Development is the participation by the people in their own progress. By encouraging discussion on local project level and by interesting the population in the carrying out of National Development schemes, a new framework of mind is created.

- In decentralising the initiative, the N.D. has also contributed in making the Governor the co-ordinating factor and driving force in his Province and in enabling technicians, administrators and the elected representatives to become accustomed to working together.

- There are, however, factors which limit the scope of this aspect, namely the scarcity of medium-grade supervisory staff and the lack of technical studies.

In the light of past experience it seems that the National Development, in extending its scope, should direct its efforts towards :

- A wider outlook based on regional economic development and a more active participation by the people in this development. The National Development schemes should be in accord with other Government programmes and be complementary to them.

- More centralised schemes (in view of the scarcity of senior grades) and particularly more integrated projects where several schemes and techniques are being jointly applied for the development of a given sector. This method which is already being used within the framework of the DERRO project will be gradually extended to the whole of the National Development programme.

Thus by making maximum use of available labour a combination of small-scale joint productive investments will provide the basis for subsequent development on a larger scale.

3. - Industry

Between 1960 and 1966 the gross national product increased by less than 3% per annum; the growth rate in the "power" and certain other branches of industry, however, was considerably higher than this figure; the incremental value, for example, in the power industry rose by more than 50% between 1960 and 1966. This spectacular growth was caused primarily by the installation of the S.A.M.I.R. refinery. The "textile" branch also made considerable headway (60% up over the period in question). The same applied t the chemical industry with the commissioning, in 1965, of the Safi installation.

While the overall index of mining output has only risen by 10% since 1960, growth has been much greater in the phosphates sector, the production index of which rose from 118 in 1960 (based on 100 in 1958) to 149 in 1966. Prospects appear very favourable, on the one hand due to the constantly increasing overseas demand and, on the other, to the estimated increase in fertilizer consumption by the agricultural industry.

Recent investments under the Three Year Plan, both by the State and by the private sector, encourage the hope that industrial development will continue to make progress.

The State programmes took the form of:

- direct investment, particularly in the chemical plant at Safi;

- shareholdings;

- payment of equipment grants for industrial investment.

Out of credits available amounting to 850 million DH, a total of 548 million DH was paid out.

Taking the overall investment into account (both State and private) it is seen that in certain branches of industry such as textiles, results are appreciably higher than forecasts; in other sectors, by contrast, the results are more modest, mainly due to:

- Over-estimating likely demand (various industries and building materials).

- Inadequate initial investigation into certain projects.

- The difficulty of finding financing and qualified associates.

4. - Tourism

Together with agriculture and the training of senior grades, tourism, as has been stated, was one of the priorities of the Three Year Plan. The following table summarises the results achieved in this sector:

Implementation of the Three Year Plan in the Tourism Sector

	Objectives	Results	% of achievement
Number of tourists in 1967 (1)	70,000	500,000	71%
Investment on infra-structure (in millions of DH)	57	42	74%
Investment in hotels (in millions of DH)	327	295	90%

(1) including tourists in transit.

The Three Year Plan, therefore, marks a progress which, without showing optimism, may be considered encouraging; this progress has mobilised general interest and steps to encourage tourism which will now have the advantage of a proper basis for continuing the effort.

5. - Education and the training of senior grades

With regard to education and the training of senior grades, the objectives of the Three Year Plan were directed to the numbers of senior grades and students to be trained, rather than to investment in the strict sense of the word.

The Three Year Plan had drawn up a schooling policy intended to make school attendance more general and to promote arabisation, Moroccanisation, the training of senior grades and the standardisation of education. This standardisation is gradually being achieved and Moroccanisation and arabisation have been completed in the first stage. By contrast, the progress achieved in the generalisation of school attendance is still limited, at least insofar as primary and higher education is concerned. While school attendance in the modern State primary schools has remained stagnant, partly due to the stricter application of the admission age rules, the main reason is the consistently low attendance rate in the rural areas.

With regard to the training of senior grades, properly so called, the Three Year Plan was intended to increase the numbers of trained personnel, improving the quality of these grades and giving priority to more intensive training in the fields of agriculture, tourism and the craft industries. The marked preference of pupils for arts subjects has not resulted in the training of as many scientific and technical students in the higher educational establishments as will be needed for Morocco's economic requirements. In addition, the training schemes in the agricultural and tourist sectors have only been partially completed and as has been seen above, at least as far as agriculture is concerned, the scarcity of senior grades was the main reason for the delay in carrying out the investment programmes. In other words, in spite of the progress achieved during the Three Year Plan, considerable efforts will have to be made under the present Plan in both the training of senior grades and in education in general.

The following table summarises the results achieved under the Three Year Plan.

Implementation of the Three Year Plan (general budget)

(in millions of DH)

	Total credits available	Allocations at 31.12.67	% of achievement
Agriculture	938	585	59
Tourism	102	54	53
Infra-structure	528	405	77
Industry, Mines, Power	850	548	64
Instruction, training of senior grades, Public Health, Housing	416	321	77
Administrative facilities	189	158	84
National Development	61	61	100
TOTAL	3,134	2,132	68

Average annual expenditure was 711 million DH, against 540 million DH (at current prices) under the 1960-1964 plan: average expenditure by the State on equipment under the Three Year Plan was therefore 32% higher than under the previous Plan. The percentage of achievement, however, varies between the sectors. In particular, the equipment grants allocated to agriculture were only used to a relatively modest extent.

Overall investment under the Three Year Plan was scheduled at 6,200 million DH; actual investments, at 1964 prices, were of the order of 4,600 million DH or a percentage of achievement of 74%.

The present Plan will take into account the lessons to be learnt from the past and will endeavour to avoid any bottlenecks. There are, however, other factors which had to be taken into consideration in drawing up the 1968-1972 Plan, namely those concerning long-term economic prospects which formed the first phase of the work in drawing up the Plan.

CHAPTER II - Long-term planning and the need for development

The long term planning carried out by the Secretariat of State for Planning was not intended to foresee the state of Morocco's economy in 1985, but more modestly to illustrate a coherent and long-term pattern of the many hypothetical factors such as the growth of the economy and the country's population increase. We shall concern ourselves here with the problems highlighted by these forecasts rather than with the estimated figures, which are in any case usually obtained by continuing current economic trends, in order to benefit from the lessons to be learnt regarding the priority development requirements and the channels into which the country's efforts should be directed. There are three major lessons to be learnt from these forecasts.

1. - An increase in population will place an ever increasing burden on the rate of development which, to ensure a rise in the standard of living, will have to be very rapid;

2. - In order to meet the pressure of needs, agricultural development, as a result of the effort already made, will necessitate far-seeing reforms and an overall recovery programme to be drawn up and undertaken now. Unless this is done the situation will rapidly deteriorate.

3. - Savings, one of the key growth factors in ensuring investment financing, should not rely solely on standard methods: relatively new means should be found or put into more general use in order to encourage and increase local saving (particularly saving for work purposes and national development loans), and external aid which will be needed for a long time to come should be diversified and arranged along new lines (gifts, private capital etc.) unless enormous repayment burdens are to be avoided.

The extent of these problems may better be appreciated with the help of a few statistics.

Part 1 : Consequences of the population increase

The population will continue to grow very rapidly in the years to come . Unless action is taken to restrict the birth rate, the population will double between 1964 and 1985, to more than 26.5 million inhabitants in 1985. In order therefore to try and slow down this rate of growth, it appears essential to continue the family planning policies adopted during the Three Year Period in order to avoid the consequences of such an increase in the consumption, education, social facilities and employment sectors.

However, even if this family planning policy should meet with complete success, Morocco's population will still number some 23 million persons in 1985, corresponding to an average annual growth rate of 2.9% between 1964 and 1985.

Because of the tendency to drift from the countryside towards the towns, urban populations will increase at a much faster rate than rural populations, rising from 3,600,000 in 1964 to some 10 million, even presupposing an appreciable slow-down, compared with the present, in the drift from the land. This slow-down could result from an extension of the National Development schemes, from changes in agricultural structures and also from changes in the mental outlook of country-dwellers as far as inferiority of the rural way of life to that of town life is concerned. A halt in the drift from the land should therefore be one of the Government's permanent preoccupations and any measures likely to promote this should be quickly adopted, otherwise urban unemployment will reach unmanageable proportions and the urban development schemes for the years to come will become too difficult to achieve.

The consequences of these population phenomena are numerous:

- The number of jobs to be created will be considerable; taking only the urban sector into account, the number of persons to be employed will rise from almost 1 million to approximately 3 million in 1985, even presupposing a small-scale drift from the land. This shows how important is the question of urban industrial development.

- The social services obligations of the State will be particularly heavy in terms of education, public health and housing.

- Again the needs in consumer goods and community facilities would appear in the long-term to be considerable, the more so because in addition to the increased needs deriving from the growth in population there will also be those caused by catching up with delays and by the greater well-being of the less privileged classes. Here again a few statistics can accurately show the extent of the needs which will have to be fulfilled.

Insofar as consumption is concerned and assuming an increase in population at the rate of approximately 3% per annum, the table below illustrates the effort needed to maintain or slightly to improve the standard of living.

Household consumption

(in thousand million Dirhams)

	1964	1985
Maintenance of the standard of living	9	16
Increased well-being of less privileged classes and annual increase of 1% in consumption of other classes	9	19
including food consumption	5	12

The extent, therefore, may be judged of the effort required of agriculture and of the food industries in order to meet the most essential needs and of output in general which, bearing in mind the necessity to increase the rate of investment, should rise by 3.5% per annum simply in order to maintain the standard of living.

Part 2 : The need for agriculture to be developed: difficulties involved

The second lesson to be learnt from the 1985 forecasts, therefore, is the absolute necessity of accelerating agricultural development. Unless this is achieved there will be a food deficit resulting in higher imports, again adversely affecting the Balance of Payments.

This food deficit may well occur long before 1985, possibly even at the end of the next Plan. Unless the situation is remedied before then, this deficit could amount to 2,000 million DH by 1985 assuming a low agricultural growth rate and a small increase in the standard of living. The Agricultural Commission is therefore investigating this problem which is all the more pressing since, as the FAO studies have shown, the world situation is likely to become much worse. It is therefore essential for Morocco to make the best possible use of its resources, which indeed are much more extensive than in the majority of developing countries (Morocco is rich in many natural resources, has a favourable geographical situation and although her senior grades are still inadequate, their numbers nonetheless are already substantial).

The first studies that have been carried out into the possibilities of agricultural development have shewn the difficulties inherent in this question. The unsuitability of much of present structures, the slowness of people to adopt a new mental outlook in successfully adopting more modern farming techniques, the enormous amount of work required to offset the effect of irregular climatic conditions (mainly irrigation schemes) are responsible for these difficulties. The absolute necessity of developing agricultural output led to the drawing up under the 1968-1972 Plan of a vast programme of dam construction; only a very small proportion in fact, of the 110,000 million m^3 of water with which Morocco is endowed in an average year is utilised for irrigating farm-lands or for the supply of hydraulic power. Furthermore, the majority of the sites in the mountain areas are not developed.

Part 3 : The problems concerning savings and external aid

The third important lesson concerns savings. The need for increasing output will require a gradual increase in the gross rate of investment compared with the gross national product, the latter rising from approximately 13% in 1964 to more than 20% as rapidly as possible. International comparisons, in fact, show that this is the rate achieved in the developed countries. If the net rate of investment were taken into account, bearing in mind the amortisation charges which Morocco would in any event have to support, the gap would be even greater. In order to achieve such a growth in investment the means must be found to finance them, as has been proved by the experience of previous Plans where

Finally, a third source of local savings should be found in the self-financing of enterprises; this self-financing should be encouraged by a series of measures which will have to be investigated.

To conclude this outline of the situation and the lessons to be learnt from long-term planning, there are three principal groups of investigations which should come under the 1968-1972 Plan.

① - Determining the means by which agriculture can be developed. This seems to be the main priority.

② - Defining a comprehensive and long-term policy for the training of senior grades and for employment.

- Reconsidering the question of external aid and endeavouring to find the means with which national savings and investment in the
⑦ productive sectors (agriculture, tourism, industry and mining) can be increased.

SECTION II - The PRIORITIES and OBJECTIVES

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CHAPTER I : POLICY TRENDS

SECTION II - The PRIORITIES and OBJECTIVES

CHAPTER I : POLICY TRENDS

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SECTION II - THE PRIORITIES and OBJECTIVES

CHAPTER I : POLICY TRENDS

A study of the present economic situation, an assessment of the results of the Three Year Plan and the lessons to be learnt from the long-term forecasts have led the same priorities to be adopted for the 1968-1972 Plan as under the Three Year Plan: agricultural development, the growth of tourism and the training of senior grades. It is necessary, however to add other priorities of special importance: the population policy, industrial develop- and the savings and aid policies.

Part 1 - The Priorities

We have seen that agricultural output over the past few years has risen appreciably more slowly than the increase in population. This gives rise to the absolute necessity of further increasing Government efforts in this field, first by continuing direct action in the form of investment (namely in water engineering works) and secondly by continuing a specific and comprehensive policy of encouraging the farmer to increase his own stake in investment. Even in this sector the Government cannot assume complete responsibility and taking example from the situation in the industrial sectors, dynamic farmers should be granted many facilities so that they effectively contribute themselves, without any costly State intervention, to increasing the agricultural output which is so essential. These facilities should, of course, be linked with other measures such as development obligations, the setting up of a joint agrarian reform fund and revision of the methods of application of agricultural taxation in order for them to play their full rôle in encouraging intensification of production.

Action in the tourism sector should produce more rapid concrete results than in agriculture and it is natural that after the relatively short period of the Three Year Plan the estimated achievements should be more convincing. In view of the progress still to be made, however, one of the priorities of the next Plan will continue to be the development of tourism.

Turning finally to the question of training senior grades, it is clear that for Government action to be effective it should be carried out continuously under a whole series of Plans. The Five Year Plan 1968-1972 will therefore give priority in its programme to pursuing and improving the policies which have been followed in this respect during the past years.

Morocco's population is growing very rapidly. The long-term consequences of this growth have already been stated - namely, higher unemployment, overcrowding of towns - unless adequate steps are taken to remedy the situation. A population policy should therefore be laid down with the utmost urgency with the following five aims:

- completing the setting up of a family planning policy;

- slowing down the drift from the land by all appropriate measures;

- policy of creating employment in towns;

- urban development and attempt to eliminate shanty-towns, namely under the National Development programmes;

- temporary emigration policy.

The fact of having accorded top priority to agriculture should not mean that the need for industrial development is overlooked. Recent statistics have shown that the realisation of industrial development is difficult particularly by the private sector. It should be conceived in relation to a number of general principles:

- development should be in accordance with local feasibilities, making the best use of Morocco's products in order, by exporting them, to earn foreign currency;

- it should be co-ordinated with possible market outlets;

- it should finally achieve a higher rate of employment which can be considered to be a productive reserve.

In the field of savings and aid, the solutions to the problems raised may be found in many ways:

- by the use of "savings for work purposes" schemes;

- by encouraging enterprises to provide self-financing;

- by increasing the productivity of Government departments;

- by the planning and development of savings institutions to facilitate saving by private individuals;

- by planning current external aid schemes (terms and duration, proportion of gifts, guaranteed markets for Moroccan exports);

- by encouraging foreign capital.

While the main economic trends of the 1968-1972 Plan are partially the same as under the previous Plan, at the outset of this new Five Year Plan the maximum advantages should be taken of the lessons to be drawn from previous Plans. In its preparation and contents, therefore, the Plan should incorporate the means by which its programme can be carried out. The following are needed:

✓ - the study and selection of a certain number of concrete projects, chosen for their national interest, according to a method the principles of which will be explained below;

- the institution of reforms and measures, both in connexion with action relative to structures and behaviour and to the implementation of the Plan;

- finally, a start on regional planning which should enable the country's beneficiaries to participate more fully than in the past in the realisation of the Plan.

Part 2 - Conception of the Plan

A - Projects

The investment provided for under the Plan is related to basic units: the projects. The Plan is intended therefore to have two aspects:

. It contains a detailed description of projects and a precise study into their profitability (technical specifications, sources of finance, localisation, economic and social advantages, employment created). In view of the thought and care which has been devoted to these investment decisions, they should be ensured of a successful completion.

. A selection is made from among possibile projects on the basis of profitability criteria in the widest sense. The scarcity of Morocco's available resources and the urgent need to develop the country's economy will allow of no wastage. These calculations are thus necessary. This is all the more important as these projects are frequently financed to a large extent out of public funds. They should therefore lead subsequently to such incremental values as to provide for the recovery of this financial outlay.

The principles according to which selection of projects and the setting up of an investment programme are carried out, are fourfold:

- the collection and preparation of projects,
- the study into their profitability,
- the selection of projects,
- their harmonisation and co-ordination.

1 - Collection and Preparation of projects

One of the first tasks was effectively to sort out the various projects scattered among the technical Ministries and the various State or private study organisations. These projects can be considered to have reached a more or less advanced stage of maturity. There are three categories of these projects:

. projects already carried out, though not yet having reached their maximum efficiency through lack of complementary schemes. These projects still come under the Plan; at the moment they account for a net loss of resources. This applies, for example, to certain dams built, but which are not operating at maximum output as the internal or external development of the farm land to be irrigated has not yet been completed. Minor ancillary schemes should therefore be linked with these projects in order for the latter to be rendered fully profitable.

. projects, the execution of which has already be decided upon and which are either in the process of being carried out or for which foreign aid is being enlisted. These projects should also be linked to the necessary schemes to ensure their efficiency, co-ordinating all the relative information for their more effective incorporation under the Plan and for their repercussions on the rest of the economy to be measured more effectively.

. projects being studied: some of these can be economically and rationally analysed. Others, although not economically viable, should nevertheless be retained for psychological, political or sociological reasons; it would be unwise, for example, to discourage regional initiative for purely economic reasons. By the same rule such projects should be so planned as to render them as effective as possible.

Furthermore, once the market study has been made, the figures aimed at should be fixed (production, employment, investment) by sector. These figures should correspond to whatever development norms and means are considered desirable. Other projects should then be investigated wherever necessary on the basis of these figures. Some of these projects may take shape at the end of the period covered by the present Plan or even be incorporated under the next Plan. The essential is to instigate an effective development process which will continue into the future beyond the Plan. This is the case particularly in agriculture.

Another factor was the setting up of a "Reception and Advisory Centre" for Moroccan or foreign investors. Apart from specifically technical information on particular projects this Centre should be in a position to provide general information on such matters as law and taxation governing enterprises in Morocco, especially concerning the advantages reserved for investors. The Reception Centre's main task during the first phase of the Plan will be to advise possible investors of the results of the market studies carried out by the Planning Committees and also of the successful prerequisites for the setting up of companies in particular branches of Morocco's industry and the advantages to be derived therefrom.

The public sector will also have a fundamental role in this phase, first by organising the appropriate investment incentivation schemes and secondly by means of shareholdings in companies to be set up.

2 - Profitability of the projects

Projects should not only be selected on the basis of book-keeping profitability criteria. It is, of course, necessary to maintain a balance between the book-keeping expenditure and receipts at company level in respect of each project. Profitability therefore will have to be calculated in the normal way. There are other criteria however, which should be taken into account and a more global approach becomes necessary. The gain and cost to the National need to be assessed and not only to the company. Various factors such as the employment created, the saving achieved in foreign currency and, more generally, the national incremental value created need to be taken into account.

Because of the acuteness and the urgency of the problem of unemployment special importance will have to be given, as seen in the previous section, to the criterion of the amount of employment created.

Concerning the methods used to compare projects we shall confine ourselves here to emphasising the two fundamental aspects of the selection criteria: recourse to international prices and consideration of the subsidiary effects the project will have on the economy as a whole.

Assessing the economic value of a project is governed by the price system used to calculate revenue and cost; using prices practiced in Morocco, however, may lead to serious errors; for example artificially increased prices may be established for local products protected by high customs barriers; this advantage, however, would be false and it would be very dangerous to conclude that this type of project would be immediately profitable and of value to the Nation. By contrast, use being made of international prices will avoid certain projects being credited with purely fictitous profits and a rational choice may therefore be made among the various projects concerned. Obviously international prices, like Moroccan prices, should be treated with caution; dumping prices, for example, or prices which purely because of world fluctuations are abnormally but temporarily high or low should be adjusted but once this has been done the utilisation of international prices in selecting projects rather than Moroccan prices will facilitate the maximum development of Morocco's resources by directing its investment towards productions for which it is best suited.

The fact that in order to assess the value of an investment, account is taken of its subsidiary effects on the economy as a whole is also a part of this same preoccupation. The value of a project for the Nation, in fact, is not only governed by the incremental value created directly by the project (wages, taxation, profit) but also by the incremental value created downstream when the project contributes to encouraging other production sectors; this assessment of the "National valorisation" has already been carried out but it should be co-ordinated and improved taking into account all the "downstream" effects.

3 - Selection of Projects

This study into the profitability of projects on a national level will therefore result in projects being classified; this grading however, is only one stage; the next is selection. Two cases may then arise:

- projects which the State is proposing to finance: the State will then make those investments which are classified as the most important;

- projects instigated by the private sector: only those where national interest is sufficient will be encouraged by the various taxation reduction measures, and subsidies either scheduled or to be worked out.

This policy will obviously lead to the abandonment of projects both by the public sector and by the private sector, when the facilities demanded are not granted, and this is precisely the purpose of the economic analysis carried out. Where one class of investment is very profitable for the country it must first be asked why it is not necessarily so for more contractors. It is frequently found that the profitability is much less interesting for the contractor than for the Nation; however at that point there is nothing to stop the present facilities being increased in order that both the interests of the investor and those of the country may be met. It is also found that the main obstacle lies in the scarcity of markets; here again a policy of aid will have to be investigated.

In fact as soon as it appears that a certain type of project is of national interest, the Government should look for the means of extending this type of investment, namely by a policy of incentivation. The cost of the projects will doubtless be increased but such increases will be justified by the advantages to be obtained on a national level. This policy will obviously have to have some upper limit which should be governed by the economic factors.

4 - Harmonisation and co-ordination of projects

Projects should be co-ordinated with each other. Projects, in fact, can very loosely be listed under four headings:

- directly productive projects,
- investment on infra-structure,
- projects concerning training of senior grades,
- social expenditure.

The two latter groups are mainly long-term in their impact. The overall aspect and the content of the corresponding programme for the whole of the period of the Plan, therefore should be determined in relation to the overall long-term economic policies adopted by the Government. Special attention should be given to ensuring that the training of senior grades is in relation to Morocco's specific needs.

The first two groups are directly complementary one to the other. Productive investment without its corresponding infrastructres is useless. Conversely, road infra-structure, for example, which is under-utilised represents a wastage of resources. The harmonisation of these two types of projects is essential. A few simple rules should be used as a guide in this respect:

- infra-structure projects, subject to certain exceptions, should not be visualised in isolation; they should be integrated into industrial or agricultural projects of which they form an essential part;

- infra-structure projects which, exceptionally, are planned in isolation should be the subject of most careful examination and justification;

- in no circumstances should such projects anticipate future needs. These needs should be allowed to develop even if at some future stage cost has to be incurred because of congestion (i.e. roads or telephones).

The aim of these rules of action is to offset the imbalance in previous periods between productive investment and investment in infra-structure. Their adoption, moreover, influences the procedure for drawing up the Plan. First to the extent that infra-structure projects follow productive projects; the conception and selection of the latter, therefore, condition and thus precede the former. Secondly the calculations into the profitability of productive projects should take account of the necessary expenditure on infra-structures.

Projects selected should be co-ordinated, in other words should form part of overall investment programme observing the need for the economic equilibrium of the whole.

To this end, the influence of various projects on the revenue/expenditure figures of certain products, on the need for training senior grades and on the amount of investment to be realised has been assessed and, in combination, set against the overall, assumed medium-term forecasts concerning the output growth rate, the Balance of Payments, an investment index compatible with a realistic rate of savings and the total number of jobs to be created, etc... There has therefore been a "repeat" process between the selection of projects and the determination of the overall economic forecasts: the assumptions of the latter being questioned again after study of the projects and vice-versa. The selection and planning of the latter are then modified should they be found to lack co-ordination or to be impracticable.

Co-ordination in time should also be planned and additional production units should be set up year by year according to a rational time schedule. Poor time programming, indeed, will result either in surplus production capacities in some years or, alternatively, bottlenecks which jeopardise the successful completion of the Plan.

B - Measures and reforms

Development Plans usually confine themselves to defining the guide-lines of the Government's economic and social policies, implementation regulations of these policies being finalised during the period covered by the Plan.

Commissions have, however, been requested immediately to collate all the objectives, propose the necessary measures and present them, wherever required, in the form of implementation rules. There was obviously no question of laying down rules for five years covering the whole range of the country's economic and financial activities but, on the other hand, it would be unusual to publish a Plan unaccompanied by a certain number of concrete measures, the necessity for which had become obvious during preparation of the Plan. Certain of these measures may take the form of implementation regulations and others again can only take the form of a rule in principle, to be specified in detail at a later date.

There is no question of starting from nothing. In fact, the Government already has quite well-equipped means for direct and indirect action concerning the economic life of the country. It is usually a question of improving the functioning of this apparatus and modifying it, rather than adding other sections to it. During the past years, in fact, the rôle of the State in economic matters has considerably increased; first there is direct State intervention in agricultural matters, in the basic industries sector and in industries where there had been inadequate private initiative; secondly, efforts have been made to encourage purely private investment by a number of measures which have been incorporated into an Investment Code.

These measures, which are given in detail elsewhere, concern first the purely administrative action by the State; in this field reforms should lead to the setting up of a modern administration where, by means of the definition of responsibilities, the fixing of salaries, the existence of a justified decentralisation and of an effective co-ordination and finally by the simplicity of procedures, the "administrative service" will be produced at the least cost. There is, of course, much to be done in this field and the search for satisfactory solutions will require a certain time. The essential is that this desire for reform should be clearly evidenced and that 1968 will see the initiation of the first measures thus marking the beginnings of a continuous process of improvement which will gradually impart to the administrative machine the desired efficiency.

Direct State intervention whether by public investment or by share participations is of the utmost importance and everything points to the fact that State action will remain preponderant in the years to come, particularly as far as agriculture is concerned. It is not enough, however, to decide upon a specific programme of expenditure unless the Government has the means to carry out the operations planned. It is particularly important to ensure a close liaison between each Ministry's equipment budget and operating budget.

In spite of this direct investment, State action, however, is liberal in its framework; inother words, side by side with its direct action, the State has an important rôle in giving incentive to increased private investment. The purpose of the reforms envisaged, therefore, will be to ensure that present means of incentivation fulfil the following functions as well as possible:

- providing information for investors;

- encouraging entrepreneurs to invest in those sectors of the greatest value to the country by selective taxation: on profits, for example;

- encouraging owners of the means of production (particularly farmers) to utilise these means more rationally and more intensively;

- finally, discouraging wastage of resources and speculation.

We have already seen that the training of senior grades remains one of the major priorities of the next Plan; the measures and reforms to be effected in this field will therefore be particularly important. The rapid increase in population results in ever increasing numbers requiring schooling and any shortcomings in the training programme will have ever more serious consequences. Furthermore, the slow process of instruction means that needs have to be planned very early. In fact, the success of higher education depends on that of secondary education which, in turn, is closely linked to that of primary education. The measures to be adopted in respect of training, therefore will take account not only of present inadequacies (lack of agricultural training for example) but also of the probable long-term requirements of the economy in each field of activity and in each qualified grade.

Finally, the field where the measures to be adopted will have the greatest possible importance is that of financing the Plan.

It is quite normal for many measures and reforms to be still at the study stage when the Plan comes into effect, whether relating to the provision of land tenure structures or to the reshaping of educational programmes; this is often impossible to avoid because certain reforms, once the necessity for them has been shown, require a considerable delay before being finalised in the form of implementation regulations. Furthermore, the 1968-1972 Plan is making an attempt to become a document immediately operational: the objectives were ambitious and it would not be surprising, therefore, if they were not achieved immediately. But considerable progress has been made, many measures having reached the stage of implementation whereas others will very soon be taking the form of legislative regulations. The essential is for the initial objectives not to be overlooked and for the beginning of the year 1968 to be devoted to the finalising of the measures and reforms which appear necessary for the effective implementation of the Plan.

C - Regional economic development

In previous Plans no account was taken of regional particulars and limitations. This has caused a lack of understanding of local realities and has hindered the implementation of the Plans' recommendations. The 1968-1972 Plan, on the other hand, ~~will~~ endeavour to take the local aspect of development problems into consideration.

The first reason for conceiving the Plan on a regional basis is to ensure the largest possible participation by the population in the country's development. This aim will be achieved by decentralisation down to the provincial echelon.

The second reason is to achieve a closer approach to the development potential of each province.

a) Limitations to regional planning

A region as an economic entity should not be confused with the province which is a part of the administrative structure. The present objective is confined to endowing the provinces with development programmes which will form the beginning of more ambitious programmes.

b) The nature of regional development

The basis of regional development programmes will be a survey of the essential particulars relating to the province (resources, means, achievements carried out) which will better enable the respective situations of each of the provinces, their potential and any risks of imbalance to be measured. Without these preliminary surveys it is probable in fact that imbalances either irreversible or extremely costly to rectify would occur. Many general or particular studies have been carried out in a number of provinces or regions, primarily in the agricultural field (Haouz, Doukkalas, Loukkos, Lower Moulouya, Tadla, Tafilalet, Sebou, Derro). These studies have involved a mass of data and development projects covering a large part of the country. Certain of these investigations need to be brought up-to-date or reconsidered under a precise implementation scheme. Almost all of them, however, provide a pattern of the regions, an outline of their essential vocations and illustrate the priorities and possibilities. In other words it is rather the exact awareness of the means for implementation and of assessment of the efforts and trends which are lacking, than the studies and basic data.

The national Plan is not the sum of the various provincial programmes: this would be disparate and incomplete. The development programmes were drawn up taking into account the major projects being investigated or completed and which will change the appearance of the provinces concerned.

c) Provincial programmes

These are not Plans in the specific sense of the word; they are at the most outlines. These programmes have several objectives:

- To improve the knowledge of the provinces' situation and potential by means of the assessment prepared.

- To measure more realistically immediate possibilities (specifically by evaluating the administrative infra-structure and the availability of senior grades).

- To encourage the participation of the provincial and local administrations and population. This should provoke interesting suggestions and enable the interest of the province to be aroused.

These provincial programmes which will encompass the present situation and the long-term vocation of the area will involve three types of intervention:

Projects of national interest consisting mainly of the localised sector projects selected and decreed by the central government. The province is informed of these projects but will not be directly responsible for them (particularly as these may have little effect on the province). These projects will be financed out of the general budget and incorporated under the budget of each competent authority.

Provincial projects of which the policies and objectives will have been outlined at central government level, but which will be discussed and possibly modified at Provincial level, specifically as far as sites and priority of execution are concerned (hydraulic power, secondary roads, urban development of centres etc..). The national projects are financed out of the State budget but Provincial budgets can be financed jointly out of both the general and provincial budgets.

Local projects which include a series of schemes at present carried out under the aegis of the Province, the National Development, the Community Development or the rural communes. These projects would be carried out at the request of the communities provided there is participation by the population. Such an association can be imagined at the basic community level according to modalities still to be defined.

The same degree of precision cannot be expected for each Province. The essential is to obtain a table, classified under the above mentioned priorities, including the projects of national interest, then the main objectives with an investment of a fixed percentage for each scheme and the share of financing falling to everyone as far as the projects of provincial and local interest are concerned. More detailed tables would then follow depending on whether the projects will be studied and localised or not.

d) The criteria

There are three criteria for the selection and adoption of projects:

- Conformity to national objectives on the one hand and to the priority needs of the province on the other. These needs are indicated by the basic data and by the policies deriving from them laid down by the Plan.

- Present and estimated availability of senior grades should be taken into consideration. Thus even when a province may have an undoubted forestry need there is little point in planning a reafforestation scheme greater in extent than that which can be realised by the senior grades available.

- Taking the two above mentioned points into account the other criterion is the effort to a greater or less extent which the province is making from its own resources (private investment, local finance, contribution of land, work-investment). The most dynamic provinces in terms of local effort - not necessarily the richest provinces - could thus be given bonuses compared with others. The National Development efforts therefore could be privileged in these sectors and coould constitute a balancing element for provinces less well endowed with national investment.

e) Procedures

At provincial level the method takes its inspiration largely from the National Development in its procedure for drawing up programmes. The sort of organisation envisaged therefore is a grouping of the authorities, the technicians and the elected representatives of the population and of the professional groups presided over by the Governor.

Furthermore a secretariat could be set up comprising, under the supervision of the provincial Secretariat General, the agent responsible for the economic sector, the agent for National Development, the heads of the provincial technical departments and the statistical engineer representing the Planning Division.

Those in charge of the above mentioned specific regional projects would also be invited to participate in planning on a central level in order for work to be integrated into a general framework. The scarcity of senior grades will, in fact, reduce the scale of this.

It is essential that this first stage be followed by the regional planning of the Plan, properly so called. This presupposes first a definition and delimitation of the regions and secondly the drawing up of an adequate policy and organisation. This again presupposes:

1 - The seconding of economic advisers to the Governors, whose rôle in the economic development of the country is increasing daily.

2 - The setting up of regional planning and statistical offices. These would serve several provinces making up an economic entity.

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To conclude this analysis of the present Plan's policies, while the major priorities concerning agriculture, tourism and training of senior grades remain the same as under the previous Plan, the 1968-1972 Plan will, however, have a notably different policy towards the actual documents themselves defining the general framework of the economic policy.

CHAPTER II

THE ECONOMIC BALANCE

CHAPTER 2 : THE ECONOMIC BALANCE

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THE ECONOMIC BALANCE

This chapter will attempt to describe in physical terms the situation of the economy in 1973 after the end of the Five Year Plan 1968-1972.

Part I - THE CHANGING RATE OF GROWTH

The objectives proposed in the Five Year Plan 1968-1972 in terms of overall growth represent for the economy, unquestionably, a changing rhythm. This can be seen if comparison is made with the period 1960-1966. The country's accounts illustrate the rate of progress.

Increase in the Gross National Product 1960-1966

(in millions of DH 1960)

	1960	1966	Percentual rate of increase
Agriculture	2,650	[illegible]	0.6
Power, Mines	720	[illegible]	3.3
Industry, crafts	1,100	1,370	3.7
Building & Public Works	320	500	7.7
Transport, public services, commerce	3,410	3,910	2.3
TOTAL	8,200	9,480	2.3

The same still applies if comparison is made with the period 1964-1968, as outlined by current estimates. In both cases the overall growth of the economy remained below the average rate of 3% per annum.

Increase in the Gross National Product 1964-1968-1973

(in millions of DH 1964)

	1964	1968	1973	Rate of increase 64-68%	68-73
Agriculture	3,097	3,349	3,707	1.9	2.1
Power, Mines	890	959	1,346	2.0	7.0
Industry, crafts	1,654	1,854	2,269	2.9	4.3
Building & Public Works	498	620	933	5.5	8.5
Transport, public services, commerce	4,341	4,988	6,235	3.6	4.6
TOTAL	10,480	11,770	14,490	2.9	4.3

In the past the growth of the gross national product has doubtless been considerably influenced by the hazards of agricultural output which have caused considerable variations in the rate of agricultural growth. Thus between 1960-1966 the agricultural index was particularly low. However, had it conformed to previous trends (1.5% per annum) the growth of the G.N.P. between 1960 and 1966 would only have reached an averag of 2.5% per annum. The future anticipated agricultural gorwth is not much higher: 2.1% for the period 1968-1972, against 1.9% for the period 1964-1968. This is only true in the medium-term, however, as the efforts of the Five Year Plan are specifically aimed at obtaining in the long-term a considerably higher increase in agricultural output.

The average annual rate of growth forecast under the period 1968-1972 is 4.3%. The first stage of the "take-off", this Plan intends to move the economy from a cruising rate of less than 3% per annum, which would not even enable the population's standard of income to be maintained, to a rate of approximately 5% at the end of the period. If maintained over a long period such a rate would enable both the standard of living to be considerably improved and the national savings potential to be gradually released, both of which are inadequate under present conditions. The progressive rise in the growth rate of the gross national product during the Five Year period is planned as follows:

Rate of increase	1969 compared with 1968	3.5%
"	1970 compared with 1969	3.9%
"	1971 compared with 1970	4.2%
"	1972 compared with 1971	4.5%
"	1973 compared with 1972	4.8%

The prospects which are opened up under such a movement should lead to continued improvement beyond the period of the Five Year Plan; the investments adopted, in drawing up the estimated economic accounts for the year 1973, would normally constitute the first annual phase of the Plan following the present Five Year Plan, the aim of which should be to increase the average rate of growth above 5%.

The Five Year Plan 1968-1972 is realistic in its objectives but is nonetheless ambitious. The success of the Plan is subject to a number of conditions and it may be useful here to recall the guiding lines of these, namely:

- increasing intervention by the State in the construction of productive equipment;

- a more active and stronger economic and financial policy;

- improvement in the Government's capacity to carry out projects;

- rational selection of projects on the basis of their maximum profitability and a much strictor control of the management of public or semi-official undertakings.

- maintenance of a "climate" in the private sector favourable to the long-term development prospects by means of Government measures.

However, consolidation of growth depends primarily on investment.

PART II : INVESTMENT NEEDED

(The accumulation of capital is at the basis of and atthe same time provides the impetus for growth in output. The sector Commissions have each made a census in their own territories of the public, semi-official or private productive projects, the essential infra-structure needed and the educational, social or administrative requirements. The criteria and the methods governing the choice of the projects selected and the assessment of the overall extent of State investment are also explained. Volume II also incorporates a detailed list of the projects selected in each sector. Apart from State investment estimates have been made relative to local community investment and to the semi-official and private sector investments.

1 - Cost of investment

The table hereunder shows, in the description by sector of the work of the Commissions and in differentiating four types of labour, the total volume of investment to be planned over the period.

The prospects of achieving these investments depend on the efforts made both by the private and by the public or semi-official sectors.

In the private sector any slackening of efforts would have a considerable effect, particularly because of its anticipated contribution in the industrial and tourism fields. This is why the investment and action incentivation measures are so important and are dealt with at such length both in the chapter devoted to measures in the present Volume and in the chapters dealing with the sectors in Volume II.

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SUMMARY TABLE OF INVESTMENTS - ECONOMIC ASPECT

(in millions of DH)

SECTOR	Government			Enterprises and households			Total
	State Equipment Budget	Other Budgets	Total	Semi-official sector (1)	Private sector	Total	
Agriculture	1.550	55	1.605		160	160	1.765
Dams	745		745				745
National Development	120	30	150				150
Tourism	171	10	181	230	349	579	760
Power	214		214	296		296	510
Mines	300		300	829	133	962	1.262
Industry	290		290	465	666	1131	1.421
Crafts	22		22				22
Trade and public services					90	90	90
Education-Training	276		276				276
Youth and Sports	20	5	25				25
Public Health	101		101				101
Transport	554	10	564	57	72	129	693
Telecommunications	170		170	21		21	191
Housing-Water supply	181	83	264	15	1000	1.015	1.279
Administrative facilities	196	2	198				198
Total new investment	4.911	195	5.106	1913	2470	4.383	9.489
Renewal (2)		205	205	317	1300	1.617	1.822
Payments (3)	139		139				139
GRAND TOTAL	5.050	400	5450	2.230	3.770	6.000	11.450

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(1) Excluding State contributions incorporated under the Equipment Budget

(2) Renewal of equipment: materials or building and public works.

(3) Settlement of Treasury payments for work carried out during the period prior to 1968.

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The efforts of the public and semi-official sectors, however, are at least as important. In this respect, a close examination of the books for the Three Year Plan should ensure that the Five Year Plan has a healthy start. Furthermore, the undertakings assumed by the various Ministerial departments to ensure the proper execution of the planned investment should result in the forecasts having a very real chance of being successfully realised.

2 - Distribution of investments

This also presupposes a carefully planned distribution of effort in terms of time. An attempt to do too much in the first year is unrealistic and an over-burdening of the latter years of the Plan would be irresponsible, the result being the non-implementation of the Plan in its entirety.

Thus, although it is difficult to forecast accurately a well-planned schedule for the completion of each of the development programmes, a rational time schedule had to be drawn up. Taking into account the annual programmes currently planned for certain major operations and the absolute need to spread out the overall programme to ensure regularity of financing, the annual distribution of the overall programme will probably be similar to the table below:

Annual Apportionment of investments

(in millions of DH 67)

Government			Enterprises & households			Total	Rate of investment compared with the G.N.P.
Equipment Budget	Other Budgets	Total	Semi-official sector	Private Sector	Total		
1.100	70	1.170	330	500	830	2.000	15,1 %
950	75	1.025	385	615	1.000	2.025	16,2 %
970	80	1.050	450	710	1160	2.210	17,0 %
1.000	85	1.085	505	875	1380	2.465	18,0 %
1.030	90	1.120	560	1070	1630	2.750	19,3 %
5.050	400	5.450	2230	3770	6000	11.450	17,4 %

It will be seen from this table that the annual apportionment of investments aims at an increasing effort, as the objective is to progress from a rate of investment compared with the G.N.P. of 13.5% under the Three Year period to an average of 17.4% under the Five Year period and afterwards to 20% in 1972. But while the effort is increasing, the variation in the effort is slightly decreasing, the relative differences in the rate from one year to the next going from approximately 7% in 1969, compared to 1968, to 6% in 1972 compared to 1971.

It should be noted that the 1968 figure for the State investment budget is over-estimated from the economic point of view as it includes more than 150 million DH of payments already made. This is why the rate of investment compared with the gross national product shown in the table is 15.1% whereas a gross calculation would give 16.3%.

One may wonder why such a distribution is considered reasonable. The reasons for this are as follows:

If there were a greater time-spread the rate of investment at the end of the Plan would be somewhere in the region of 25% or perhaps even higher whereas throughout the world the rate of 30% is practically as high as has ever been achieved. It would be illusory to expect Morocco in five years to progress virtually from the minimum to the maximum.

If on the other hand the planned distribution were more concentrated over the first years this would mean that the effort required of the country in 1968 would be very considerable, much more than has been planned and described in the section devoted to the financial balance. Subsequently, however, this effort would be constant, in other words in marginal terms compared with the increase in output the growth of effort would be slow or even nil. Such a situation would be incompatible with the desire for progress.

The allocations planned therefore should provide the country with a rate of investment of 20%. Thus Morocco would beat its record year of 1953 and would be well placed compared with world averages, as the investment indices listed in the United Nations Year Book range from 10% to approximately 30%.

3 - The structure of investment

The tables on the following pages give details of the investment structures. The first shows the share of investment, sector by sector under the various agents and as a total. The second shows, again sector by sector, the share under each agent.

The first of these tables emphasises the fact that approximately 75% of investment can be considered productive (i.e. relating to agriculture, dams, the National Development, Tourism, Power, Mines, Industry and the Crafts), taking into account all the agents and the State alone. The second shows in considering these same productive sectors that the State contribution is 51% of that of the other budgets, the semi-official sector is 29% and the private sector 20%.

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(S)

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SUMMARY TABLE OF INVESTMENTS - DISTRIBUTION BY SECTOR

(%)

SECTOR	Government			Enterprises and households			Total
	State Equipment Budget	Other Budgets	Total	Semi-official sector (1)	Private Sector	Total	
Agriculture	30,7	13,8	29,5		4,2	2,6	15,5
Dams	14,8		13,7				6,5
National Development	2,4	7,5	2,8				1,2
Tourism	3,4	2,5	3,3	10,3	9,2	9,6	6,6
Power	4,3		4,0	13,3		4,9	4,5
Mines	6,0		5,5	37.1	3,5	16,0	11,0
Industry	5,7		5,3	20,9	17,6	18,8	12,4
Crafts	0,4		0,4				0,2
Trade and public services					2,6	1,6	0,8
Education-Training	5,5		5,0				2,4
Youth and Sports	0,4	1,2	0,4				0,2
Public Health	2,0		1,9				0,9
Transport	10,7	2,5	10,1	2,6	1,9	2,2	6,1
Telecommunications	3,4		3,1	1,0		0,4	1,7
Housing-Water supply	3,6	20,8	4,8	0,6	26,[illegible]	16,9	11,2
Administrative facilities	3,9	0,5	3,6				1,7
Total new investment	97,2	48,8	93,4	85,8	65,5	73,0	82,9
Renewal (2)		51,2	3,7	14,2	34,5	27,0	15,9
Payments (3)	2,8		2,9				1,2
GRAND TOTAL	100,0	100,0	100,0	100,0	100,0	100,0	100,0

(1) Excluding State contributions incorporated under the Equipment Budget

(2) Renewal of equipment: materials or building and public works.

(3) Settlement of Treasury payments for work carried out during the period prior to 1968.

[illegible] INVESTMENT

[illegible]

[illegible]	[illegible]	Enterprises and Cooperatives			
	[illegible]	[illegible]	Private Sector	Total	[illegible]
[illegible]	[illegible]		9,4	9,1	
[illegible]	[illegible]	[illegible]	16,3	35,0	
[illegible]	[illegible]	[illegible]		35,0	
[illegible]	[illegible]	[illegible]	20,9	[illegible]	
[illegible]	[illegible]	[illegible]	45,4	35,0	
				100,0	
			[illegible]	100,0	
[illegible]	[illegible]	[illegible]	30,4	28,4	
[illegible]	[illegible]	11,5		31,5	
[illegible]	[illegible]	[illegible]	29,1	49,9	
[illegible]	[illegible]	[illegible]	35,1	36,3	
[illegible]	[illegible]	[illegible]	71,3	80,2	
	100,0				
[illegible]	[illegible]	[illegible]	23,9	80,4	

[illegible] undertaken under the

[illegible] of building and public works

[illegible] carried out during

	[illegible]			[illegible]		
	State Development Budget	Other Budgets	Total	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] Development Budget.

[illegible] the period prior to 1960.

SUMMARY TABLE OF INVESTMENTS – DISTRIBUTION BY AGENT

(%)

SECTOR	Government			Enterprises and households			Total
	State Equipment Budget	Other Budgets	Total	Semi-official sector (1)	Private Sector	Total	
Agriculture	87,8	3,1	90,9		9,1	9,1	100,0
Dams	100,0		100,0				100,0
National Development	80,0	20,0	100,0				100,0
Tourism	22,5	1,3	23,8	30,1	46,1	76,2	100,0
Power	42,0		42,0	58,0		58,0	100,0
Mines	23,8		23,8	65,6	10,6	76,2	100,0
Industry	20,4		20,4	32,7	46,9	79,6	100,0
Crafts	100,0		100,0				100,0
Trade and public services						100,0	100,0
Education-Training	100,0		100,0		100,0	100,0	100,0
Youth and Sports	75,0	25,0	100,0				100,0
Public Health	100,0		100,0				100,0
Transport	80,0	1,4	81,4	8,2	10,4	18,6	100,0
Telecommunications	88,5		88,5	11,5		11,5	100,0
Housing-Water supply	14,2	6,5	20,7	1,2	78,1	79,3	100,0
Administrative facilities	99,5	0,5	100,0				100,0
Total new investment	51,6	2,1	53,7	20,2	26,1	46,3	100,0
Renewal (2)		11,3	11,3	17,4	71,3	88,7	100,0
Payments (3)	100,0		100,0				100,0
GRAND TOTAL	44,1	3,5	47,6	19,4	33,0	52,4	100,0

(1) Excluding State contributions incorporated under the Equipment Budget

(2) Renewal of equipment: materials or building and public works.

(3) Settlement of Treasury payments for work carried out during the period prior to 1968.

PART III : DEVELOPMENT SECTOR AND THE STRUCTURE OF THE ECONOMY

This changing rhythm will also hasten the progress made in the structures which has already been achieved in the past few years.

The table below shows the relative importance of each of the major sectors of the economy, comparison being made between previous development plans and the results anticipated at the end of the Five Year Plan.

Proportional share of the main sectors in the G.N.P.

(%)

	1960	1964	1968	1973
Agriculture	32.3	29.6	28.6	25.6
Power, Mines	8.8	8.5	8.2	9.2
Industry, Crafts	13.4	15.7	15.7	15.6
Building & Public Works	3.9	4.7	5.3	6.4
Transport, public services, commerce	41.6	41.5	42.2	43.2
TOTAL	100.0	100.0	100.0	100.0

1 - Agriculture

In spite of the considerable efforts made in the agricultural field and the fact that agricultural output should increase appreciably under the Plan, the proportional share of agriculture continues to fall, although at a slower rate. This is one of the inescapable consequences of progress.

The work of the Agricultural Commission should ensure a growth in agricultural output at a rate of 2.2%, subject to the conditions which are detailed in the corresponding chapter in Volume II.

The modernisation of farming methods compels this sector to increase its intermediate consumption faster than its output. This is why agricultural incremental value only rises by 2%. This figure would, moreover, be even lower if Government expenditure was included in the intermediate consumption.

This rate of 2%, lower than the general growth rate of the economy, naturally leads to agriculture having a decreasing share in the G.N.P., falling from 30% to 25% at the end of the Five Year Plan.

2 - Power

The development of power over the past few years should increase still further to reach an average of 5.4% for the period 1968-1973.

However, the power and extractive industries combined will only regain in 1973 their relative share in 1964 and will still be below that in 1960. This phenomenon is explained by more rapid development in the other sectors (industry, building, services).

3 - Mines

A strong recovery in this sector's situation is forecast. For phosphates the rate over the Five Year period should exceed the growth of the previous best years over a comparable period (9.2%). The stagnation in the situation of the other mines should show a modest improvement (3.7%). Taking this sector as a whole, a rate of 7.9% per annum for the period 1968-1973 should be achieved.

4 - Industry and Crafts

During past years this sector has developed at a relatively slow pace, scarcely exceeding 3%. Under the Plan the prospects of the "industry" and "craft industries" group implies by contrast an annual growth of 4.3% over the period of the Five Year Plan, or for industry alone a rate of growth in excess of 5%. The forecasting for industry of a growth rate two to three times higher than that achieved during recent years may appear ambitious. Going back even further such a rate has never been achieved over such a long period because industry has already developed at a rate of 5% per annum but for only two or three years. This achievement can only be made if, in addition to clear-cut major State or private schemes, industry achieves a parallel development of small-scale initiative in setting up or expanding enterprises, and also if the climatic conditions favouring traditional farming enable the demand for consumer goods by the agricultural population to increase regularly.

In industry and the crafts as a whole the food sectors are developing faster (6.9%) than the other branches (3%), because of the growth of the sugar-refining industry (of the order of 20%). The other branches: metals, mechanical engineering, the motor and cycle industries on the one hand and the chemical and allied industries, rubber and papermaking on the other, should progress at appreciably the same rate (around 4%), a little faster than the textile industry (slightly over 3.5%). The latter branch in fact cannot be expected to maintain its rapid growth over previous years as there is practically no more scope for replacing imports by Moroccan finished products and as the relatively small market often makes the manufacture of raw materials unprofitable.

5 - Building and public works

This sector is closely linked to the amount of investment to be realised during the period.

The major programme of infra-structure work presupposes that the building and public works sector should be capable of developing at a very high rate (8.5% per annum) which has so far never been achieved. It may be necessary during the Plan to "import" public works by turning to foreign undertakings for the carrying out of certain major works.

A direct consequence of this growth is that this sector's share of the national output is continually increasing.

6 - Transport, public services and commerce

With certain exceptions, the most important of which is the tourist demand these sectors have had to be dealt with under the 1973 forecasts as the end or intermediate demand indicates.

The principal results are the following:

The development of the public services is heavily influenced by the growth of tourism, raising the need for development of the public services from 12 to 22% in nine years. This explains the particularly high rate of growth adopted for this sector (6.2% per annum between 1968 and 1973) although home demand is affected by the reduction of foreign residents who are large consumers of the public services.

Transport should grow considerably (7%) deriving both from Morocco's own needs and that of tourism.

Housing development is increasing much more slowly than the urban population growth (3.8% against 5.1%, excluding foreigners, for the period 1968-1973), as a result of the falling demand by foreigners and the policy of low-cost housing.

The sum of the trading margins on imports is increasing appreciably less than imports themselves (3% against 6.1% over the period) because of the replacement by raw materials and semi-finished products of finished products.

Finally local trade is increasing at a more or less equal rate to that of the end home demand, excluding investment (4.4% for five years).

PART IV - BALANCING EXPENDITURE AND REVENUE

This section concerns the balance in volume of expenditure and revenue at constant 1964 prices. The consequence of the adoption of these prices is that for this sector certain calculated figures given are at variance with those given elsewhere.

An even more important factor, however, is that the balance shown in the table below is based on a certain assumption concerning the distribution between national saving and external aid. As the following chapter shows, the decisions relative to this distribution will be taken as time goes on in relation to feasibility. The balance shown below, therefore, can only be intended as a guide. Any increase in external aid will in fact increase short-term household consumption but greatly reduce it in the long-term and vice-versa.

[illegible]

1 - The overall balance

The table below shows the overall balance between expenditur and revenue for the years 1964, which is the past, 1968, the first year of the Five Year Plan and 1973, the year when the achieveme of the Five Year Plan can be judged.

The overall balance between expenditure and revenue in 1964 prices

Balance [illegible]

Year	Household Consumption	Public Authority Consumption	Foreign Government Consumption	Tourist Consumption	Gross Capital Accumulation	Total	Gross National Product	Trading deficit	Vari- tior fluct uatin reser
					Absolute values in millions of DH				
1964	8,460	510	70	310	1,390	10,740	10,480	170	90
1968	9,515	520	70	405	1,900	12,410	11,770	640	-
1973	11,190	650	70	650	2,820	15,380	14,490	890	-
					Relative values in %				
1964	78.8	4.7	0.7	2.9	12.9	100	97.6	1.6	0.8
1968	76.7	4.2	0.6	3.2	15.3	100	94.8	5.2	-
1973	72.8	4.2	0.5	4.2	18.3	100	94.2	5.8	
					Average annual rate of growth in %				
1968-64	2.7	0.5	-	6.8	8.0	3.6	2.9	25-30	
1973-68	3.3	4.6	-	10.0	8.3	4.4	4.3	6.9	

This table clearly illustrates the structure of the overall balance between expenditure and revenue. It illustrates particul from the point of view of expenditure the increasing share of capital accumulation and from the point of view of revenue the increasingly important rôle of the trading deficit.

[illegible]

The variation of the reserve is only given for 1964. This is due to the fact that the variation is fluctuating and therefore unpredictable and not a variation of reserves linked to output included with the gross accumulation of capital.

2 - Household consumption

Household consumption should rise faster than the growth of population during the Five Year period.

The difference between the rise in consumption and the growth in population will be all the more marked in that, at equal incom the spontaneous or compelled impulse to save will not increase any more; this will result in the need for further external aid in orde to realise the saving necessary for the accumulation of capital.

It should be recalled here that the population growth rate between 1968 and 1973 is 2.9% for the whole of Morocco's population and 3.1% for nationals alone. The rate of increase in household consumption has been estimated at 3.3% for the whole of Morocco's population and 4% for nationals alone, in other words the per capita consumption should increase by approximately 0.9% per annum on average during the Five Year period .

The increase in output and the other sources of revenue (public authority wages, transfers from workers emigrated abroad) leads inevitably to an increase in consumption in spite of Government pressure on savings (cf. the chapter on the financial equilibrium). Taking into account the assumptions regarding the country's rapid urban development the rise in per capita consumption will be as follows between 1964, 1968 and 1973.

Rise in the level of consumption

(in millions of DH and in %)

	Level			Rate of Increase	
	1964	1968	1973	1968/1964	1973/1968
Moroccan nationals, rural	3,776	4,145	4,660	2.3	2.4
Moroccan nationals, urban	3,484	4,305	5,620	5.4	5.5
Total	7,260	8,450	10,280	3.8	4.0
Foreigners	1,200	1,065	910		
TOTAL	8,460	9,513	11,190	2.7	3.3

The consumption per capita of Moroccan nationals should rise to 0.9% per annum in general which is not negligible. In fact, showing an overall rate conceals the existence of two distinct phenomena: first a relatively small rise in per capita consumption in each sector and secondly a rapid urban development.

The assumptions made concerning the modification of the structures are the following, first as far as Moroccan nationals are concerned:

- a slight increase of the budgetary and food coefficients for country-dwellers but a slight decrease for town-dwellers;

- the opposite for industrial and craft industry products;

- a slight decrease in urban housing expenditure;

- the status-quo in all other sectors.

As far as foreigners are concerned, it is evident that changes in their consumption are generally negligible.

These assumptions take the following form with regard to modification of the structure of household consumption.

Modification of the structure of household consumption

(in millions of Dirhams
and in %)

	Absolute values			Relative values		
	1964	1968	1973	1964	1968	1973
Agricultural and food products	4,895	5,506	6,479	57.8	57.9	57.9
Power and mining products	301	340	392	3.6	3.6	3.5
Industrial and craft-industry products	2,305	2,584	3,010	27.2	27.1	26.9
Transport and public services	555	623	772	6.6	6.6	6.9
Housing	404	462	537	4.8	4.8	4.8
TOTAL	8,460	9,515	11,190	100.0	100.0	100.0

It can be seen that the structure of consumption hardly needs to be modified. However, it is possible that more flexible studies compared with income or the prices of products would modify the information given in this table more appreciably. During the Five Year period the two principal items of household consumption should be carefully watched if only because of the repercussions on imports.

3 - Other end-consumptions

The figures adopted for consumption by the public authorities n goods and services show between 1968 and 1973 an increase in his consumption of 4.6% per annum or a little less than the State xpenditure on equipment by itself (1.[illegible]).

With regard to foreign Government bodies (diplomatic repre- ntations, international organisations, cultural missions, foreign hambers of Commerce etc.) consumption has been assumed to remai table.

The rate of growth of 10% adopted for tourist consumption s less than that of the increase in the numbers of tourists, nd is based on the assumption of a drop in average expenditure.

The table below indicates the end-consumptions, by the maj categories of products:

End-consumptions

(in millions of Dirham

	1964			1968			1973		
	Public Authorities	External	Tourists	Public Authorities	External	Tourists	Public Authorities	External	T
Food and agricultural products	100	12	105	103	12	121	129	12	
Power, mining and industrial products	336	19	38	343	19	56	427	19	
Transports and public services	74	39	169	74	39	228	94	39	
TOTAL	510	70	310	520	70	405	650	70	65

From the point of view of their structure, consumption varies little in time and the percentages given below are virtual constant.

Structre of end-consumption in 1973

(%)

	Public Authorities	External	Tourists	T
Agricultural and food products	20	17	25	2
Power, mining and industrial products	66	27	11	38
Transport and public services	14	56	64	40
	100	100	100	10

4 - Accumulation of capital

The specialised committees have provided the necessary data concerning the total investment adopted for the Five Year period. This is studied in detail in volume II and summarised above in this chapter.

(By contrast, a global extrapolation has been made for 1973 which has enabled the amount of investment for this year to be fixed at 2,990 million Dirhams at 1967 prices which should be compared with the Five Year average of 2,290 or to the years during this period at both ends of the scale, ie. 1,880 in 1968 and 2,750 in 1972.

For the purposes of forecasts in volume, the investment adopted for 1973 has been fixed at 2,820 million Dirhams at 1964 prices. The table below shows the break-down of the accumulation of capital for the final year in equipment and tooling on the one hand and buildings and public works on the other.

Break-down by product of the gross accumulation of capital

(in millions of Dirhams and in %)

	Absolute values			Relative values		
	1964	1968	1973	1964	1968	1973
Buildings and public works	844	1,057	1,598	61	55	56.5
Equipment and tooling	546	343	1,222	39	45	43.5
TOTAL	1,390	1,900	2,820	100	100	100

The break-down for 1968 and 1973 is much the same - the differences are not significant - but differ slightly from the break-down for 1964, a reference to the past, as the share of equipment and tooling is slightly higher.

5 - External Trade

More than in 1968 and still more than in 1964, the trade deficit in 1973 is an important complement of the gross national product as a means of ensuring that needs are met. This is due primarily to the considerable growth in the accumulation of gross capital in equipment and materials which are still to a large extent imported. Imp

External trade is characterised by a considerable growth. The rate of increase in the trade deficit is higher between 1964 and 1968 than between 1968 and 1973. This derives from the fact that the year 1968, which is in the Five Year period, was strongly influenced by the investment effort.

The structure of international trade changes little. Changes in the import structures have been caused by capital assets. The anticipated changes in the structure of exports are primarily the result of the increase in sales of mining products during the Five Year period.

The trade balance will remain favourable for agricultural and food products in spite of the very low rate of growth of agricultural output compared to needs, although this balance will be considerably reduced.

6 - Conclusion

If an attempt were made to describe in a few words the trend of the balancing of income and expenditure one could say that Morocco in 1973 would find itself on a much higher level in terms of consumption of the goods and services available in the country by its own output or by imports but that the share of the latter will increase. This is inevitable, bearing in mind the major capital programmes planned.

Share of the principal elements in balancing expenditure and revenue

(in millions of Dirhams and in %)

	Absolute values			Relative values		
	1964	1968	1973	1964	1968	1973
Gross National Product	10,480	11,770	14,490	80	80	79
Imports	2,520	3,060	3,970	19	20	21
Variation of reserves	90	-	-	1		
TOTAL	13,090	14,830	18,460	100	100	100
Consumption	9,350	10,510	12,560	71.5	71	68.5
Accumulation of capital	1,390	1,900	2,820	10.5	13	15
Exports	2,350	2,420	3,080	18	16	16.5
TOTAL	13,090	14,830	18,460	100	100	100

CHAPTER 3 - FINANCIAL EQUILIBRIUM

CHAPTER 3 - FINANCIAL EQUILIBRIUM

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THE FINANCIAL EQUILIBRIUM

Accelerated economic development increases the risk of financial imbalance. In order for the economic development to continue as long as needed it has to be incorporated within a framework where the basic financial equilibria are able to resist the strains imposed by rapid expansion.

The Plan should therefore attempt to predict possible strains and the measures to meet them. To this end three major aspects of financial development have been thoroughly investigated: the financing of public investment, the financing of State investment and the financial relations with foreign countries. The financing of public investment, however can only be investigated after studying the State finances as a whole, in other words by including current expenditure and revenue.

I - THE STATE FINANCES - THE OPERATING BUDGET

In fact the question of financing public investment, that is in the sense used in this present chapter - investments coming under the State equipment budgetexcluding local community investment and major road maintenance coming under the operating budget - cannot be separated from the question of the general equilibrium of the State finances, because from the Treasury point of view the management of public funds and State finances is inseparable.

The total revenue (taxation, income, loans, Treasury deposits etc.) should be compared with all charges (operating, management and amortisation of the debt, equipment) without apportioning by preference certain categories of income to certain categories of expenditure. This is the way in fact in which the annual management of the Public Treasury operates: any current surplus reduces the amount of loans needed to finance investment; any current deficit is a charge on available loans. The need is therefore clear to fix, by simultaneous decisions, the scope of the equipment budget expenditure for the Five Year period and the choice of the financing measures to be adopted by the State.

The need to increase the country's development as rapidly as possible leads to the selection of public equipment programmes as ambitious as possible. As financial resources of all kinds, however, are necessarily in short supply and as the desire for stability presupposes a rejection of monetary measures, these programmes are restricted in their scope to the total volume of availabilities. The method of the system adopted is reiterated. It consists first of examining the probable increase in current expenditure and revenue, adopting for the purposes of estimating the debt charges (interest and repayments) a reasonable figure for public loans. The desired expenditure on investment, increased by the deficit or decreased by the current surplus represents the balance to be financed by loan. The possible imbalance of the structure after general comparison compels the re-examination of each item of revenue and the determining of their limits.

By successive approaches an acceptable balance is reached, the acceptable rate of taxation, the limits to the Moroccan financial market, the country's maximum capacity for external debt, the availability of foreign public or private capital, greater recourse to loans, being the limiting factors.

The results of this research show that at the floor level of public expenditure on equipment, below which there is little prospect of achieving the planned growth in national revenue, new supplementary internal revenue will have to be released by new means.

For the sake of convenience it is preferable first to analyse the current revenue of the State, at constant taxation and then the operating expenditure of the public debt, excluding charges, and then finally introduce the latter to achieve a balancing of the operating budget.

1 - Estimate of current revenue at constant taxation

The estimate of revenue at "constant taxation" presupposes that the fiscal leglisation (basis, rate, indices) remains unchanged or is only subject to minor modifications and the assumption that there will be no major fiscal reform.

Current revenue is divided into four major groups: customs duties, indirect taxation, direct taxation, other revenue.

Over the past (1960 - 1966 period) an attempt has been made to determine the correlation between this revenue and various major elements in the economy (gross national product, national income, consumption). This same correlation has been applied to the growth estimates resulting from the calculated objectives of the Plan.

The detailed estimates for the prospective national accounts for the final year 1973 also include a separate calculation of the global fiscal revenue which serves as a cross check.

Customs duties are linked to imports but the connexion is complex as rates of duty vary according to the nature of the product. An average increase of 4.1% has been adopted by means of a detailed calculation, by product, between 1968 and 1973, whereas imports should increase overall at a rate of 6.1%. Increases in indirect and direct taxation will amount to 4.6% and 3.4% for the same period. A rate of 4.4% has been adopted for the other revenue.

Among the figures quoted for 1968 are those coming under the appropriation bill. However, in the economic rather than the budgetary framework of the Plan, certain revenue has been deducted: the proportion of the T.P.S. (tax on goods and services) made available to the local communities, the excess profits of the O.C.P. (Cherifien Phosphates Office) allocated to the equipment budget and also exceptional revenue and loans and contingent revenue.

The overall increase amounts to 4.1% for the total current revenue at constant taxation between 1968 and 1973.

From these calculations the following estimates can be made of current revenue at constant taxation:

Current revenue at constant taxation

(in millions of DH)

	1968	1969	1970	1971	1972
Customs duties	466	485	505	525	546
Indirect taxation	773	808	845	884	924
Direct taxation	584	604	624	645	667
Other revenue	442	453	466	486	523
TOTAL	2,265	2,350	2,440	2,540	2,660

The structure of this revenue is shown in the table below:

Structure of current revenue at constant taxation

(%)

	1965	1968	1972
Customs duties	20.5	20.5	20.5
Indirect taxation	35.5	34	35
Direct taxation	25.5	26	25
Other revenue	18.5	19.5	19.5
TOTAL	100	100	100

The rate of fiscal pressure compared with the gross national product, the remarkable stability of which should be noted, is interesting to calculate. This rate is maintained at 19.3%. The growth in the volume of output has a proportional rather than a more rapdi repercussion on the State revenue, unlike the fiscal systems of the majority or even of all of the industrialised countries.

Rate of fiscal pressure at constant taxation

(%)

	1965	1966	1967	1968	1969	1970	1971	1972
Fiscal receipts related to the G.N.P.	17.2	19.1	20.2	19.2	19.3	19.3	19.3	19.3

2 - Estimate of operating expenditure

The first stage in estimating operating expenditure is effected excluding the public debt charge. For this purpose, the needs expressed by certain Ministerial departments during the work of the Committees, the conclusions to which the Committees have come with regard to administrative staff and operating expenditure, the necessary liaison between new equipment and recurring expenditure, have all been taken into consideration and have enabled estimates to be drawn up which, excluding all charges of the debt, can be summarised by an apparent rate of growth of 4.3%, as certain material expenditure adopted for 1968 is quite exceptional and is unlikely to recur. This is why the estimates are calculated excluding this exceptional expenditure, to arrive at a final figure of 5.1% for the growth rate.

It should be noted that the 1968 data for revenue agree with the appropriation bill after excluding the proportion of the T.P.S. paid to local communities and the counterpart of the contingent revenue.

The second stage in estimating the operating expenditure consists of situating the public debt charge in the overall expenditure, the growth rate of which is 5.1%. The small increase under this item between 1968 and 1969 derives from the fact that 1968 has had an exceptional amount of bills falling due which had not been foreseen.

The estimates of operating expenditure, calculated in this way are summarised below.

Operating expenditure

(in millions of DH)

	1968	1969	1970	1971	1972
Personnel	1,440	1,517	1,592	1,676	1,772
Materials	520	488	498	525	554
Other expenditure	211	219	227	236	247
Debt charge	264	266	303	343	387
TOTAL	2,435	2,490	2,620	2,780	2,960

The structure of operating expenditure in accordance with the above mentioned calculation methods illustrates by comparison of the first year of the Five Year period to a previous year and to the final year of the project, that the modifications to the operating budget are negligible.

Structure of operating expenditure, excluding debt charge

(%)

	1965	1968	1972
Personnel expenditure	61	60	60
Equipment expenditure	22	21	18.5
Other expenditure	7	8	8.5
Debt charge	10	11	13
TOTAL	100	100	100

3 - Operating Budget Balance

The table below shows that the State operating budget, at constant taxation, would increasingly show an adverse balance.

Operating budget balance at constant taxation

(in millions of DH)

	1968	1969	1970	1971	1972	TOTAL
Current expenditure	2,435	2,490	2,620	2,780	2,960	13,285
Current revenue at constant taxation	2,265	2,350	2,440	2,540	2,660	12,255
Deficit	170	140	180	240	300	1,030

Such a deficit totalling 1,030 million dirhams for the period is obviously intolerable. This is why it must be accepted that new revenue will have to be obtained as and from 1968 in order for the operating budget to be balanced. The nature of this revenue which could well be a reduction in expenditure, will have to be determined. In any event, however, it should not be confused with the new revenue intended to finance the equipment budget to which we shall be referring below.

These efforts will be made and the operating budget will be drawn up.

PART II - FINANCING THE EQUIPMENT BUDGET

1 - Scope of the equipment budget

The equipment budget, the contents of which have been studied in detail in the previous chapter, amounts to 5,050 million DH or 7.7% of the gross national product and this rate is fairly constant throughout the period. Annually, the equipment budget will be 1,010 million DH on average compared with some 650 for the Three Year Period.

The volume of the equipment budget should therefore practically double between the average of the Three Year Plan and the year 1973, which represents on the part of the State a very considerable effort. A higher aim would have been out of reach for two main reasons.

The first relates to the capacity of the contracting public authorities to carry out a volume of work on this scale. In 1967 the utilisation of the equipment budget credits will reach some 830 million dirhams and it would therefore be materially impossible for the technical departments to absorb the following year an amount of investment work in excess of 950 million which corresponds to a budgetary expenditure of 1,100 by including payments.

The second reason concerns the strain imposed on the public finances and which is already evident even before having compared total charges and revenue. The external debt in foreign currency would then reach an excessive level. From the point of view of external finances the level of loans would rapidly assume an intolerable burden. Acceptable, at the outside, for a few years if it were the prerequisite to an "economic take-off", by 1980 the situation would be reached where the external debt charges would equal, and then evermore quickly exceed the gross annual loan. The country would find itself in a worse position than at the outset, without credit abroad and overburdened by considerable debt. In the same way an internal loan would rapidly overburden the public finances.

It was therefore essential to make a selection from among the existing programmes. The criteria applied in order to do this were the following:

a) Importance of productive investment to ensure development of the national economy.

b) Need to adopt investments in respect of which a decision to carry out the work had already been taken.

c) Need to maintain existing capital (major programme of maintenance).

d) Assessment of the projects' economic interest (on the basis of the figures calculated or, in default of these on the basis of qualitative indications) without overlooking the fact that certain social schemes may be subject to considerations other than those of immediate profitability.

The results of this selection led to the scope of the State equipment programme being set at 5,050 million Dirhams for the Five Year Plan.

The corresponding financing measures are still to be found.

2 - Financing the equipment budget

The external resources already defined - public loans, supplier credits - would amount to 1.940 million Dirhams for the Five Year Period. The corresponding charge has already been included in the operating budget which can be considered to be balanced.

Internal resources include first the classic Treasury measures - deposits, internal loans - estimated at 626 million Dirhams. No recourse will be had to inflation.

The Regional Development Fund will contribute some 565 million Dirhams to financing the equipment budget. Finally, new means of revenue already studied by the Ministry of Finance and likely to be applied without delay, either fiscal or loans, will add 330 million. Total internal revenue is therefore 1,521 million Dirhams.

The sum of the external and internal revenue as defined, therefore, amounts to 3,461 million Dirhams while the equipment budget amounts to 5,050 million Dirhams. 1,589 million Dirhams remain to be found either from increased external aid or by a new national effort. The financing measures, however, will only be defined as time goes on and in relation to feasibilities.

The table showing the financing of the equipment budget has therefore been drawn up as follows.

Financing the equipment budget

(in millions of DH)

	1968	1969	1970	1971	1972	Total
External revenue	320	360	380	420	460	1,940
Treasury measures	115	120	125	130	126	626
Regional Development Fund	286	115	62	51	51	565
New specific internal revenue	86	61	61	61	61	330
Partial total	807	656	628	662	708	3,461
New internal or external revenue, unspecified	293	294	342	338	322	1,589
Financing the equipment budget	1,100	950	970	1,000	1,030	5,050

PART III - EXTERNAL FINANCES

With regard to current Balance of Payments operations there is no doubt that the deficit will increase during the Five Year Period. This is evident and results primarily from external aid which can only take the form of imports. Furthermore, the interest on the public debt will increase and whatever alleviation to the other foreign currency outgoings (expenses of representations abroad, Moroccan tourism abroad, gifts, interest on private debts and other revenue from foreign capital investment in Morocco) the current expenses of the Balance of Payments will continue to increase.

On the other hand tourist income should increase very considerably. Similarly, but to a lesser extent, transfers or gifts by Moroccan workers abroad and also exports will probably increase as well. Overall, however, current Balance of Payments revenue will increase less quickly than expenditure.

The deficit in the Balance of Payments current account will be offset by the surplus on the capital account mainly by public or private foreign capital contributions.

The fact should be emphasised that these capital contributions will have the opposite effect on current account with the alleviation brought about by the increase in certain current receipts. But with the exception of this alleviation, the net contribution of capital comes under the trading deficit. This phenomenon is evident and absolutely inflexible both because of its accountancy procedure and also because of the need physically to import capital goods. A heavy trading deficit is normal and healthy provided it is constituted by capital goods; what would be more serious would be to have too many imports of consumer goods. It is the duty of the customs policy to obtain a proper balance between imports of capital goods and consumer goods. In any event, however, the balance between Balance of Payments receipts and expenditure should be ensured.

BART IV - GENERAL FINANCING OF INVESTMENTS

The chapter concerning the economic balance investigates the accumulation of capital needed between the years 1968 and 1972 in order to achieve the economic and social aims of the Five Year Plan. In terms of financing, 11,450 million Dirhams will have to be devoted to investment during the Five Year period according to the following schedule:

1968	2,000 M of DH
1969	2,025 M of DH
1970	2,210 M of DH
1971	2,465 M of DH
1972	2,750 M of DH
	11,450 M of DH

Investment therefore would be an average of 2,090 million Dirhams over the Five Year Period. The average rate of growth would be 10% under the Plan.

In other terms the investment index compared with the gross national product would move from 15.5% in 1968 to 20% in 1972, whereas it was some 13% in the years prior to the Five Year Plan.

The table below summarises the investment planned during the Five Year period and accentuating the financing aspect.

SUMMARY TABLE OF INVESTMENTS - FINANCIAL ASPECT

(in millions of DH)

SECTOR	Public capital					Private capital	TOTAL
	State Equipment Budget	Other Budgets	State Enterprises	Public Credits	TOTAL		
Agriculture	1.550	55		160	1.765		1.765
Dams	746				746		746
National Development	120	30			150		150
Tourism	171	10	47	381	609	151	760
Power	214		214		428	82	510
Mines	300		723		1.023	239	1.262
Industries	290		385		675	746	1.421
Crafts	22				22		22
Commerce and Public Services						90	90
Education & Training	276				276		276
Youth and Sport	20	5			25		25
Public Health	101				101		101
Transport	554	10	57		621	72	693
Telecommunications	170				170	21	191
Housing - Water supply	181	83	15	500	779	500	1.279
Administrative facilities	196	2			198		198
New investment	4911	195	1.441	1.041	7.588	1.901	9.489
Renewal	-	205	317	-	522	1.300	1.822
Payments	139				139		139
Grand total	5.050	400	1758	1.041	8.249	3.201	11.450
Percentual Distribution	44	3	15	10	72	28	100

Another way of illustrating the investment effort adopted for the Five Year Plan is to show the distribution of the overall internal revenue available, that is to say the gross national product plus trading deficit, between investments and the various types of consumption.

Year	Investment		Consumption		Revenue
1964	12.2%	+	87.8%	=	100%
1968	15.3%	+	84.7%	=	100%
1973	18.3%	+	81.7%	=	100%

The proportion of revenue devoted to investment increases by half over nine years which reveals an appreciable change in national behaviour in relation to investment compared with the period prior to the Five Year Plan.

All these considerations, however, only illustrate the investment aspect, the other factor being financing investment by national saving assisted by external revenue.

There should be a certain balance between national saving and external contributions. A study of this balance as far as the State equipment budget is concerned has already been made. Some facts concerning enterprises and households are given below.

Taking account first of the forecasts relative to revenue and secondly current expanditure by undertakings and households their available savings index i.e. net of outgoings of capital abroad, may be expected to increase. Given a certain work assumption, an explanation of which is unnecessary, the following figures may be advanced.

Available savings index of undertakings and households

(%)

	1964	1973
Compared with overall revenue	5.5	8.8
Compared with household consumption, including tourism abroad	8.0	13.4
Compared with gross national product	7.0	10.7

There is thus an appreciable improvement in the behaviour of these factors in respect of savings but this change is not spontaneous because the saving calculated above includes increase in taxation and the national development loan as savings for the purpose of work. Without these factors, the book figure for available saving in 1973 would be much higher.

It would be unrealistic however to consider such a book surplus as a saving because if such sums were left at the disposal of private persons they would increase consumption. This is why it is absolutely essential to plan taxation and national development loans if consumption is not to follow on the heels of savings.

Coming back to the general problem of the balance between national saving and external aid for the Nation as a whole, both an increased but reasonable national savings effort and a larger call to external aid, compatible with the country's capacity to absorb debt, should be accepted.

Consequently, as far as external capital contributions are concerned, the difficulty should be emphasised of fixing the proportion of investment to be financed by external aid. To ask too much from abroad will place the country heavily in debt and jeopardise the future. To ask for too little will necessitate the abandonment of certain investments or require too much effort from the Nation.

With regard to the distribution of savings between public authorities and enterprises and households, the problem is different. Strictly from the point of view of the general economy, the greater the increase in savings by public authorities, by increased taxation and the national development loan, without taking into account the restricting of current expenditure, the greater will be the prospect of the objectives being achieved. Only social considerations - not cutting back consumption - or micro-economy considerations - not discouraging work or private investment - would indicate the limit which should not be exceeded in this field. Conversely, an inadequate rise in saving by the public authorities would mean the abandonment of any hope of achieving the fixed investment aims, because it would be difficult to rely on a radical and spontaneous change in the savings behaviour of private individuals, at least in the short-term.

Public authorities, therefore, should absorb revenue over and above that which is needed by undertakings for their own investment, over and above that which is laid down as an objective for household standards of living and over and above that which can be expected from the latter's spontaneous saving. This system of absorbing revenue beyond these limits can and must be carried out on two levels:

- at utilisation level,norms for increased private expenditure should be fixed and adhered to.

- at distribution of income level, care should be taken that this is not increased too quickly, whatever the production concerned.

CHAPTER 4 : SOCIAL OBJECTIVES

SECTION II : THE PRIORITIES AND OBJECTIVES

CHAPTER 4 : SOCIAL OBJECTIVES

Part 1 - Population and family planning

Part 2 - Drift from the land

Part 3 - Housing

Part 4 - Public Health

Part 5 - Employment

Part 6 - Education and cultural progress

CHAPTER IV - SOCIAL OBJECTIVES

The realisation of certain social objectives or, more precisely, the raising of the standard of living, an equitable distribution of the national revenue, the generalisation of education, cultural expansion and the extension of youth and sports' activities, improvement in public health and housing, should be considered as the final objective of economic development. These objectives are both the conditions for the realisation of economic growth and the result of economic development. The interdependency of economic development and social progress needs no justification. The progress in one sector is dependent on the effort made in other sectors, however far removed they may at first appear to be. The industrial development of the country is, among others, dependant on the training of more senior grades and accelerated agricultural output will only be achieved when rural education has been adapted to agricultural needs. In order to provide mutual support the social and economic policies should therefore be adapted and coordinated together.

The largest proportion of expenditure of a social nature is incorporated under the State operating budget although it does, in fact constitute actual investment. It is, therefore, not only funds devoted to the building and equipping of schools and hospitals which should be considered as investments but also the current expenditure on staff and equipment.

Part 1 - Population and Family Planning

Morocco's population has increased very rapidly over the past thirty years. It rose from 6,600,000 in 1935 to 8,600,000 in 1952, to 11,100,000 in 1960 and to 14,340,000 in 1968.

This increase in population is the result of a consistently high birth rate and a rapidly decreasing death rate, largely the result of development of the hospital infra-structure. The natural rate of increase in the population, therefore, is of the order of 3.3% at the present time. This rate, one of the highest in the world, results in an unfavourable demographic situation, not only because of the rate of growth but because of the structure of the age groups where the dependent population (under 15 and over 6 years old) constitutes a large proportion of the total population

When we know that 46% of the population is aged under 15 years old and that this percentage will increase in the years to come, the socio-economic difficulties deriving from this situation may easily be envisaged.

In fact, the less numerous adult generations have to feed, support and educate the younger generations who are continually growing in numbers. Furthermore, the adult generations have had little schooling, little education and have insufficient employment and productive possibilities. This burden represented by our younger generations constitutes one of the obstacles to savings and, consequently, to a high rate of investment. In fact, until the population growth is controlled it will continue to be a heavy burden on the economic and social development of the country.

The table below shows the forecasts of Morocco's population, based on two assumptions: a constant birth rate and a drop in birth rate subsequent to family planning.

(in thousands)

	1968	1973	1985
- Assumption of a planned birth rate	14,340	16,635	22,860
- Assumption of a constant birth rate	14,340	16,970	26,540
- Different between the two assumptions		335	3,680

It will be seen that at the end of the Five Year Plan, action taken concerning the birth rate should result in a lower total population than if no action were to be taken. In the long-term the difference in numerical figures between the two assumptions i.e. 3,680,000 persons, demonstrates the need for a drop in the birth rate to be one of the priority schemes for economic and social planning.

Aware of the importance of this question the Government inaugurated a pilot scheme for family planning in 1966. At the same time a national seminary was organised and an inquiry was undertaken in order to gather information and the attitudes and opinions of the population with regard to family planning. On the legal level a Higher Commission of the Population (Royal Decree No. 1.0.66 of the 10th Joumada I 1.386) was set up; this Commission was charged with the drawing up and implementation of Government policy in matters pertaining to the population. Furthermore the Royal Decree 181.66 of 22nd Rbial 1.387 modifying article 453 of the Penal Code, abrogating the regulations in relation to contraceptive publicity, supplied the legal basis for a mass propaganda action.

The national family planning programme is intended, within the framework of the cultural and religious structure of our society, to enable families to choose the number of children they desire and the time when they wish to have them, by placing at their disposal all the necessary means. To this end a programme of education and information will be instituted in conjunction with a medical programme. Although medical action will be principally directed towards the use of intra-uterine methods, all other methods will be distributed to families.

The realisation of this programme will enable the birth rate to fall from 50 to 45 per thousand during the Five Year Plan. In the long-term this family planning programme is intended to reduce the birth rate to 35 per thousand towards 1980 to 1985, which will contribute to providing a solution to the problems of food, schooling, housing and employment by reducing their acuteness.

Part 2 - Drift from the land

One of the consequences of population growth is the rapid concentration of the population into towns, both by the natural growth of the urban populations and by the drift of the rural population. Urban population is increasing at present at an average rate of 5.2% per annum including 1.5% per annum from the drift of country-dwellers towards the towns.

The drift from the land, analysed thoroughly, would be explained by a number of factors, both economic and social; first the increase in the rural population has not been accompanied by corresponding economic growth. By contrast the average income of the town-dweller is twice as high as that of the country-dweller. The difference moreover is not merely economic but is also social and cultural.

Because of the difference in the level and manner of living the drift from the land incorporates therefore an aspect of social mobility. As such, it can be a factor for progress. Nevertheless, an unlimited drift would become unproductive because a larger proportion of the national revenue would have to be devoted to social services expenditure to the detriment of directly productive investment.

The volume of the urban and rural population will increase as follows during the Five Year Plan. The population estimates, according to area and social class have been made on the basis of past trends in the drift from the land and its probable development.

(in thousands of inhabitants)

	1968	1973
Urban population	4,610	5,800
Rural population	9,970	11,025
Whole of Morocco	14,580	16,825

During the Five Year Period 1968-1972 the drift from the land, on the basis of past trends, should amount to 500,000 persons in five years. The measures to be adopted, therefore, which should be incorporated within a long-term framework, will attempt to minimise the effect of this.

The regional development projects, therefore, (Sebou, DERRO, Souss...) the dam building policy and the various agricultural policy schemes will assist in the stabilisation of the rural populations. The action of these projects, of which the first steps will be carried out during the Five Year Plan,will be strengthened by the State basic rural equipment programmes (drinking-water supplies, electrification, development of the souks, etc.) already undertaken either within the framework of the "community replanning" operation or by the action of the National Development or again by specific schemes such as the PAM project (World Food Programme) in favour of housing.

Furthermore, progressive decentralisation will ensure the progress of small urban and semi-urban centres which will play the rôle of satellites around the large urban conurbations. The settingup of industries for the processing and treatment of harvests at the site of production will bring rural-dwellers considerable additional income.

Part 3 - Housing

Previous Plans have always given an important place to the struggle against the extension of the shanty-towns and the over-population of the medinas. However, the extent of the efforts to be made in other priority sectors did not permit in 1965-1967 any considerable credits to be allocated to this sector. The Three Year Plan therefore only provided for the completion of current housing programmes, the utilisation of land to be redistributed and the building of improved health systems. These objectives have been realised and sometimes even exceeded.

In spite of the achievements of the State and the local communities in the matter of housing, considerable efforts remain to be made. The Five Year Plan therefore intends to undertake a considerable programme in both the urban and the rural sectors.

The struggle to eliminate the shanty-towns will be pursued in the large towns. Everywhere the maximum encouragement will be given to the beneficiaries to participate in the work, whether the construction of urgent housing or the castor system.

With regard to rural housing, financial and technical assistance will be given to the population both under the framework of operations such as the "community replanning" programme, National Development, Community Development and under specific schemes (for example the World Food Programme).

The housing programme will be completed by supplies of water and electricity to rural centres. A programme of repair for certain "Ksours" in the Extreme South will be launched which will at the same time preserve this cultural and touristic heritage.

Finally, it is essential now to draw up without delay long-term urban development plans to control the development of towns for the decades to come and to ensure their co-ordinated and harmonious growth.

Part 4 - Public Health

Despite the pressure of the population expansion and the increasing medico-health needs, the health situation has shown an appreciable improvement over the past 10 years.

This medico-health progress has been rendered possible through the development of prevention and cure networks and their better geographical distribution.

Morocco, however, only counts at the present moment one doctor for every 12,000 inhabitants and one hospital bed for every 680 inhabitants. A considerable effort, therefore, remains to be made both in the training of sufficient and competent medical and para-medical staff and in the increase in the hospital and preventive infra-structure.

The policy instituted during the Five Year period will be applied simultaneously in several spheres of action:

- maintenance and safeguarding the existing hospital system and rendering existing equipment profitable;

- training medical and para-medical staff to meet present and future needs and Moroccanisation. The building of the university hospital complex in Rabat and the Faculty of Medicine, while meeting this need, will increase the hospital infra-structure;

- extension of the preventive system (urban and rural areas);

- extension and integration of family planning which constitutes one of the priorities in the public health programme.

Part 5 - Employment

A complete analysis reveals at the root of the employment problem certain quantitative and qualitative factors. The quantitative aspect may be summarised by an imbalance between supply and demand; the qualitative aspect by the structural transformation of the employment situation, primarily because of urban development, the proliferation of parasite activities and the consequences of the generalisation of schooling.

The rate of increase in the population of working age is 3.3% per annum following the coming to working age of the young. Taking into account the rate of availability, in other words the percentage of persons needing employment, according to sex, age and social class, the numbers of the working population available (also designated by demand for employment and offers of labour) will increase as follows during the Five Year period:

(in thousands)

	Men	Woman	Total
Urban sector	280	100	380
Rural sector	260	70	330
Whole of Morocco	540	170	710

Taking into account the growth of the various sectors of the economy, the employment created during the Plan will amount to 485,000 jobs (net increase in jobs available between 1968 and 1973).

Agriculture

The 1968-1972 Five Year Plan investments in this sector devoted to increasing the irrigated land area and modernising the irrigation sector, will result in the creation of 275,000 agricultural jobs or 57% of the employment created as a result of investments during the Five Year period.

Mines, Power, Industry, Building and Public Works

The Plan's objectives in these sectors will result in the creation of 29,000 new jobs. This is a relatively low figure compared with the amount of effort involved. This, in fact, first involves the modernisation of existing industries and also the realisation of projects needing extensive capital aimed at increasing the country's industrial potential. Investment in th sector will result in a considerable growth of national output. This investment will also ensure a more rapid absorption of labour in the post-Five Year period.

In the craft industries the investment planned is directed towards organising and rationalising output and the marketing of products. Initially these schemes will involve the "modern" sectors of this branch, mainly for exports.

The creation of employment will offset the considerable reduction in craft industry jobs in the "traditional" sector (textiles).

Transport, Public Services and Commerce

Investment in road and rail transport, tourism, the public services and commerce designed to improve and modernise commercial relations within the country and with foreign countries and particularly to improve Morocco's hotel system, will result in the creation of 138,000 new jobs in these important sectors.

Public Authorities

Through a very rapid increase in the public authorities' equipment budgets and a corresponding increase in operating budgets, the numbers employed by the public authorities will rise from 215,000 in 1968 to 258,000 in 1973.

Summary table of new employment (net increase)

Agriculture	275,000
Mines, Power, Phosphates	2,000
Industry and craft industries and Public works	27,000
Transport	36,000
Public Services	57,000
Commerce	45,000
Public Authorities	43,000
Total new employment	485,000

The balance between supply and demand over the Five Year period is as follows:

(in thousands)

	Urban sector	Rural sector	Whole of Morocco
Increase in supply	380	330	710
Increase in demand	180	305	485
Surplus before National Development	200	25	225
Increase under National Development	50	20	70
Surplus after National Development	150	5	155

Detailed analysis of the unemployment figures shows that in the rural sector it is seasonal under-employment in respect of a large proportion of the population rather than unemployment in the strict sense of the word. Similarly, in the urban sector the supply of jobs and demand should be subdivided between male and female which would show, in fact, lower unemployment figures for family wage earners. The fact that in the urban sector unemployment is frequently spread over certain "parasite" occupations in the tertiary sector should also not be overlooked.

The aims of the medium-term employment policy will consist in developing schemes effecting the supply and demand of jobs, respectively increasing the one and reducing the other, and will ensure that adequate long-term solutions to the reabsorption of unemployment and under-employment will be found.

Expansion of employment, however, despite its urgency, should not be detrimental to economic growth. But increase in the production of goods and services will be achieved by using, in sectors wherever this is feasible, techniques which economise capital and have a greater need of labour.

The rate of growth of the national income during the Five Year period will be 4.2%, while the rate of increase in productivity per person employed will be 1.5%. The latter rate will provide for the creation over the Five Year period of 485,000 jobs instead of 300,000 if productivity increased by 3% per annum.

Reconciliation, however, of the objectives of Morocco's economic growth and expansion of employment, by calling on, partly in the Five Year period, first foreign investment and secondly an increase in savings, would not be sufficient. The National Development which enabled part of the rural under-employment to be absorbed between 1961 and 1967 by initiating a "saving for the purpose of work" scheme, by the realisation of infra-structure and development work, will receive a new impetus during the years 1968 to 1972. Its action, until 1966 limited to the rural areas will extend to Morocco's urban areas primarily for the absorption of the shanty-towns.

Factors of a mainly psychological and administrative nature have hitherto held up the extension of emigration. This will be directed both towards European countries and towards certain Mediterranean countries. This scheme will have three main results: an increased inflow of foreign currency which will partly finance [illegible] investment; employment of a proportion of our population which cannot be absorbed within our own land without increasing labour in the unproductive sectors; larger numbers of Moroccans acquiring professional qualifications abroad and an outlook favourable to the spirit of enterprise and economic development.

The central emigration department will first be strengthened and reorganised to this effect in order to ensure better than in the past co-ordination of the work of the various Ministerial departments concerned and secondly the network of special attaches abroad will be increased. The objective will be to increase the number of workers abroad at the end of the Five Year period.

Part 6 - Education and cultural development

The educational and training policy defined in the Plan constitutes the consolidation and extension of the objectives which served as a basis for previous Plans. While meeting the legitimate desire of every individual to acquire knowledge and to educate himself in order to develop and fulfil his aspirations, this policy should also aim to endow the country with those fundamental instruments for economic development, constituted by a skilled labour force and competent senior grades.

The cultural and social aspects of the educational sector, the fact that from the economic point of view education incorporates both consumption and investment, the experience and implementation of the previous Plan which emphasises the extent of the quantitative and particularly of the qualitative problems, all lead to a fundamental consideration of the extent and quality of the means to be adopted for such training. This consideration is all the more necessary as it is governed by strict financial imperatives.

Education and training

The progress achieved since independance in general schooling arabisation, Moroccanisation, in the training of senior grades and unification have been impressive. By their pace and the structural transformation they entailed, however, they have given rise to problems of which the principal manifestation has been the drop in quality of education and its internal efficiency at all levels, but primarily in the top grades. If these principles, therefore, remain the fundamentals of our educational policy, their implementation should be accompanied by the re-establishing of the quality of education and its internal efficiency. To this end, absolute priority will be given during the Plan to the training of competent and qualified teachers and to existing teaching staffs being given refresher courses. Other measures designed to improve quality and efficiency will also be adopted, particularly extending the duration of primary schooling and improving the material conditions of education.

In view of the past and anticipated expansion in secondary education, where numbers will increase by half during the Five Year period, the State programme for secondary education will be at both the quantitative and the qualitative level; half the school investment, therefore, will be devoted to this end; similarly, the quality of teaching dispensed will be gradually improved through the training of more and better qualified teachers. With regard to professional instruction, analysis of training systems shows a manifest lack of co-ordination and adaptation to the needs of economic development. Consequently, the actions of the Five Year Plan will be directed to raising the level of training and its suitability in practice, by eliminating the distortions due to lack of co-ordination among the Ministerial departments which dispense different training programmes for the same types of employment.

In view of the structure of schooling, an accelerated growth in higher education, coming under the Ministry of Public Education and the other departments, is expected at the end of the Five Year period. Investments allocated by the State, therefore, will attempt to meet the problems caused by the increase in the number being educated and to achieve more effective higher education policies.

The lack of adaptation of the education system to modern needs, whether in our own country or in the economically more advanced or less developed countries is evident. The long-term policy, therefore, should lie in an attempt to adapt education better to the country's socio-economic needs and not overlooking the need for cultural development. The schooling system should also be adapted to the demand for education in relation to the country's available teaching staff and financial resources. The educational system therefore should be thoroughly re-organised. This will concern both the concept of education, the "finality" of the system, its structure and its programmes. The Five Year period will therefore be a period of study with a view to the later and effective realisation of reforms, certain aspects of which will come into force during the Five Year period.

Socio-cultural and sports activities

The development of extra-curricular cultural and sports activities for the benefit of young people, impressive as it was during the 1960-1964 Five Year Plan and the 1965-1967 Three Year Plan, did not, however, reach the desired extent through the lack of supervisory staff and the reorganisation of the infra-structure. As the realisation stage now appears feasible the Five Year Plan will be directed vigorously towards expanding the extra-curricular facilities for the young and also towards organising their leisure activities by sports and recreational schemes and by their participation in work of a national interest. At the same time Public Education programmes will be given further impetus in order to meet the needs of the population which aspires to a greater understanding of modern civilisation and finally in order to achieve as widespread a disemination of culture as possible. Similarly the socio-educational programme of the Feminine Promotion scheme will help women adapt themselves to the needs of modern Morocco. This programme is directed to the population of the shanty-towns, to country-dwellers and also to women belonging to the underprivileged classes.

In the field of sports the programme of action will endow an increasing section of the youth with a physical training in accordance with its needs. There are two aspects of this programme of action: mass sports and the training of an elite to represent Morocco in the major international sporting events.

The realisation of the Five Year programme will necessitate the setting up of considerable cultural and sporting facilities for the benefit of the youth. The infra-structure existing on the eve of the Five Year Plan will thus be improved and extended.

In the field of human resources medium-term planning should not be dissociated from long-term prospects, within the framework of which it should be incorporated; moreover, the interdependence of the various human factors in development demands an integrated and co-ordinated programme.

The planning of human resources should therefore be conceived as a continuous process aimed at adapting and co-ordinating the work of the different Ministerial departments concerned. A specialised Sub-Committee of the Inter-Ministerial Planning Committee will ensure throughout the period of the Five Year Plan first the implementation of the Plan to be adopted and secondly that all the studies and work necessary to promote the planning of human resources in the long-term will be initiated.

SECTION III - THE MEANS

SECTION III : THE MEANS

Chapter 1 : The economic and financial policy

Chapter 2 : The training policy

Chapter 3 : Administrative action

Chapter 4 : Implementation of the Plan

SECTION III - THE MEANS

CHAPTER 1 - THE ECONOMIC AND FINANCIAL POLICY

Part I - The investment policy

1. Agricultural policy
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CHAPTER 1 - THE ECONOMIC AND FINANCIAL POLICY

The present plan is ambitious; although its objectives may still seem modest compared with the needs to be satisfied they will nonetheless be difficult to maintain having regard to recent achievements. Raising the overall investment index compared to output by 13% to 20%, in other words to a level close to that of th average in the industrialised countries, implies nothing less than a major change and presupposes a very considerable effort.

The present Plan therefore proposes a programme of concentrated action in a number of priviliged sectors.

In accordance with the policies adopted, priority will be given to economic development (development of the most productive sectors) rather than social development, or in other words to productive installations rather than social facilities, although it is true that the raising of the level of income is a *sine qua non* condition for achieving a social policy worthy of the name. The latter will therefore be confined during the Five Year period to"safeguarding operations", intended primarily to stabilise the population in the countryside by housing and rural-centre development schemes, by expanding the National Development, by reducing consequently unemployment in the urban sector and finally by improving the operation of social facilities as far as existing means will allow.

The main schemes undertaken will be regrouped around the three following fairly classic poles:

- The policy of investment
- The policy of training senior grades
- The financing policy

Part 1 - The investment policy

The investment policy which is reflected by the extent of State aid will mainly concern the three key sectors in development: agriculture, tourism and industry. The infra-structure, of course, will not be overlooked but in most cases the schemes included under the Plan are directed more to the maintenance and renewal of the existing structure rather than to its extension. The latter will only be adopted when it is needed for the development of the three above mentioned priority sectors.

The investment policy will comprise not only a very appreciable effort in terms of buildings and equipment but will also be concerned with a number of reforms and measures which form its necessary complement. Indeed, it is useless to plan (and even to spend) large credits for developing a sector, unless at the same time the means to make this investment profitable are provided and unless the obstacles to such development are removed. The measures and reforms proposed in the Five Year Plan should therefore to be considered as an integral part of the installation programmes even if they are frequently still not clearly defined which in fact they will be in the coming months. Unless this is the case there is a real risk that the planned objectives may not be achieved.

1 - The agricultural policy

In spite of the efforts made over the past fifteen years, agricultural output has scarcely increased by more than an average of 1.5% per annum. If such a low growth rate, appreciably lower than the rate of growth of the population, were maintained, the long-term consequence would be the appearance of considerable difficulties, namely large food deficit with all the consequences this would make for the Balance of Payments and for the world where the scarcity of food is likely to become generalised, as a recent F.A.O. investigation indicates.

An accelerated agricultural development therefore is Morocco's number one priority and the objective aimed at in this respect is to raise the average annual growth rate of agricultural output over the Five Year period to approximately 2.1% at the end of the Plan. This implies the achievement of very considerable efforts (31% of the State budget during the Plan and 46% if the large-scale water engineering works are included) often by extending the policy carried out in the past because in agriculture more often than elsewhere, success depends on perseverence in a programme where the rewards will only be reaped in the long-term.

The programme of extending irrigated land by building large-scale hydraulic works and developing small- and medium-scale water engineering works will be continued and approximately 50% of the State budget will be devoted to this. This will enable the total irrigated area to be increased by 177,000 hectares at the end of the Plan, thereby considerably increasing production potential. Cultivation will be intensified in these irrigated regions as far as possible and for this purpose the existing installations will be rendered profitable by the completion of work designed to ensure optimum use being made of the water resources.

Maximum intensification of farming and the profitability of programmes already undertaken will therefore be the first elements in the effort of the Five Year Plan which will also include an important programme of dry-farming improvements.

This effort will be characterised more than in the past by its adaptability to the socio-economic conditions in the area in which it is applied. It will therefore take different forms depending on whether it concerns the development of modern farming methods in irrigated regions, where it will be given priority as being the most productive, or depending on whether it concerns the gradual changeover in the major part of the country, where there are no irrigation facilities, from the traditional type of farming to more intensive cultivation.

This effort will be directed towards farming reform, the principles of which were already defined in the Three Year Plan, and to re-organising State intervention. At the same time, facilities for research (in the sense of applied research and a programme for making the results of this research widely known and adopted) and for training should be developed.

Programme of action

The programme for agricultural development during the Five Year Plan comprises four major spheres of action:

- intensification of cultivation in irrigated areas;
- gradual improvement of traditional dry-farming;
- continuation and extension of the fight against soil deterioration and action to improve conservation of Morocco's land heritage;
- stockbreeding development

The development and intensification of cultivation in irrigated areas will be given priority, as these areas have greater development potential and action is more immediately profitable, leading to rapid expansion particularly by the development of industrial cultivations for export and local industry requirements.

Part of this work will be devoted to the completion of the installations already effected and making them profitable: this includes installations in areas already controlled by major hydraulic works (Tadla, Gharb, lower Moulouya, Doukkalas) which will be completed (completion of an irrigation channel network to supply water to the holdings).

New main work construction programmes are already being carried out (Ouarzazate, Tafilalet, Haouz) or are to be carried out (Loukkos, Souss, Sebou). Development and cultivation programmes will be set up both in respect of areas already partially developed and of completely fresh projects which will result in the integrated development of a region. These will generally be carried out by the appropriate Regional Development Office.

Small-scale water engineering works will also be developed. An extensive programme involving some 50,000 hectares will be instituted.

Research, however, into the improvement of dry-farming which will still account for the major proportion of agriculture, should not be overlooked. The action, which will be gradual and adapted to the region in question, will concern a number of schemes, mostly involving the extension of projects which have already been started:

- developing the utilisation and production of fodder both for stockbreeding purposes and in order to introduce a worth-while product; to this end a programme of general information and distribution of selected fodder seeds will be initiated;

- improving cereal yields in the pilot schemes based on the system of summer tilling, using original stock cereal seeds and fertilisers. The aim is to increase cereal yield from 3 to 5 quintals per hectare, the present yield being very low; the area involved will increase from approximately 350,000 hectares in 1968 to 500,000 at the end of the Plan.

- distributing small-scale machinery in order to improve farming techniques (change-over from the swing-plough to the plough);

- tree planting by distribution of different kinds of plants for orchards.

These schemes will depend on continuation of the vigorous programme of information and instruction adapted to the local sector, through the training of advisers with a full awareness of the socio-economic characteristics. The majority of the above mentioned schemes form part of the redistribution programme which aims at distributing 75,000 hectares of plots of land to farmers to form viable holdings. Those allocated this land will be obliged to observe a set of instructions and failure to do so will result in the land being allocated to someone else. In this way it is hoped to set up pilot type holdings. Finally, the "dry-farming" facilities of the Ministry of Agriculture will be developed in relation to the needs to be fulfilled.

The fight against deterioration of the soil will be continued and extended in order to increase treatment by S.P.R. from 13,000 hectares to approximately 15,000 hectares a year. Forestation or reafforestation will again involve some 70,000 hectares. Various investigations will be added to this programme concerning approximately 100,000 hectares. These schemes will be given priority and be concentrated in the areas with existing water engineering systems. At the same time an attempt will be made to find markets for the forestry products (Alfa, cork, art-wood) in conjunction with the industrialisation and marketing policies.

The policy of attempting to prevent the scattering of land holdings based on land regrouping within the framework of the large hydraulic works (130,000 hectares will be regrouped)and facilitated by land reform will depend also on the drawing up of a national survey which will begin under the Five Year Plan and concern some 670,000 hectares.

Finally, particular efforts will be devoted under the Five Year Plan to stockbreeding, hitherto agriculture's poor relation.

To this end a programme of co-ordinated action will be instituted, based on:

- the setting up of administrative facilities and a "health unit" (equipped with the means of combatting foot-and-mouth diseases; construction of mobile dips, laboratories and sick-unit. distribution of medicines);

- improving cattle feeding through improvement of pasturage. the more wide-spread use of fodder, the setting up of fodder reserves (private and co-operative) and emergency State stocks of beet pulp at the sugar refineries;

- the genetic improvement of species through the constructi of selection sheds, importation of pure breeds and artifical insemination;

- a vigorous marketing policy based on extension of the system of milk-collecting centres;

- encouragement of stockbreeding co-operatives;

- drawing up a national stockbreeding chart.

Basic reforms

The efficacy of this programme is dependent upon the success of reforms, two of the most important of which are the reform of farming and the re-organsiation of the State's intervention machinery. If these reforms are not instituted however costly investment may be in the agricultural sector, their successful outcome will be jeopardised.

Farming reform, aimed at setting up economically viable units and ecouraging intensive cultivation will comprise: the redistribution of land and measures relating to the laws of inheritance, agricultural taxation, farm rentals and the promoti of agricultural co-operatives.

Land Redistribution

The present legal status of community land, "guich", "habous" and estates is unsuited to an efficient utilisation of this land. This will involve, therefore, in accordance with the principles defined by His Majesty the King of 20th April, 1965, the setting up of a "Common Agrarian Reform Fund" intended to ensure the distribution to farmers of plots on land which form viable holdings. A Specialised Committee will be set up as soon as possible to give substance to these reforms.

The laws of inheritance will be regularised in order to avoid the breaking up of land into small holdings, detrimental to its effective exploitation. Breaking up at the owner's death should be avoided by giving one of the heirs a right of pre-emption with the other heirs possibly being compensated out of agricultural credits.

The fiscal leglisation concerning agricultural income, based on the "potential" income from holdings, if applied correclty, should induce farmers to cultivate their land intensively unless they are to incur penalties. The obstacles to the effective functioning of this tax will be removed.

The institution of a standard farm rental agreement, guaranteeing the rights of both contractual parties, will put an end to the present disorders and uncertainty in this field, as the farmer who is uncertain of his rights and future will hesitate before undertaking the necessary investments for the effective exploitation of his holding.

Finally, the settingup of farming co-operatives will be encouraged both as a means for a privileged dialogue between farmers and the State and also as a means for ensuring greater efficiency in farming. These co-operatives would be situated not at production level (the average farmer's temperament does not lend itself easily to this type of organisation) but at the level of supplies, machinery, marketing and credit. By its selective action at this co-operative level (subsidies, credit facilities) the State would be providing incentives to such co-operatives.

Reorganisation of the State's intervention machinery will be accomplished both in the sense of better co-ordination of activities at Ministry of Agriculutre level and of further decentralisation at regional level. It will also depend on the "agricultural charter for subsidies and aid".

The State intervention machinery in the agricultural sector is very diversified. The Ministry of Agriculture and Agrarian Reform will have to be re-organised, namely by defining the powers of each Directorate and each Office in order to avoid overlapping of work and particularly by creating a veritable Directorate of Research and General Planning at Ministry level and finally by giving a wider degree of autonomy to the Regional Development Offices.

The rôle of the Directorate of Research and General Planning would be threefold: to collate the necessary statistical data, t translate the Government's agricultural policy into a programme and to follow up and promote the implementation of the Plan. This will ensure the co-ordination of the activities of the various Directorates which themselves will be re-organised with a view t greater efficiency.

Decentralisation will be carried out by the seven Regional Development Offices which will be allowed a wide autonomy in the sector.

The question of farming subsidies has been studied by a Committee which has proposed a series of measures relating to grants and other forms of aid. Implementation of this "agricultur charter" is dependent on the institution of the above mentioned reforms.

2 - The tourism policy

The experience of neighbouring countries illustrates that a rapid and massive expansion of tourism, by its foreign currency contributions and its influence on projects, can play an essential rôle in a country's development, given the presence of certain conditions: natural factors, existence of installations and a reception infra-structure, the quality and competititive nature of facilities and services offered and a thorough prospection of markets.

While on the first point Morocco is undoubtedly privileged (because of the beauty of its countryside and the mildness of its climate), the other conditions are still far from being fulfilled and the hesitant tourist demand during the past three years, even though partly explained by the unsettled conditions everywhere, demonstrates that the planned objective in this sector, i.e. the doubling between 1968 and 1973 of the numbers of Morocco's tourist is rather ambitious.

A series of wide-ranging measures should therefore be adopted during the Five Year period.

There will be one fundamental assumption at the basis of this effort: tourism in Morocco at present is too costly and is uncompetitive; it is now only available to the "better-off" class of tourist but it should be extended to the "middle" classes who form the vast majority of tourists; this will be achieved by reductions to current prices.

This effort will be directed along six main lines:

- Co-ordination of the activities of the different public authorities;
- Development of priority regions;
- Construction of accommodation facilities;
- Improvement in hotel management and action concerning prices;
- Training of personnel;
- Reception of tourists and prospection of foreign markets.

a) Co-ordination

Co-ordination of the activities of the various authorities and Ministries will be improved under the responsibility of the Ministry of Tourism. At the same time the procedures necessary for the erection of tourist facilities will be simplified and in the main, will come under the responsibility of this Ministry.

b) The policy of development by the State of priority regions (priority development regions) begun under the Three Year Plan will be continued and extended in order to provide the country with "complexes" disposing of all the necessary means for the development of tourism. These "complexes" are selected in relation to the natural resources of the region concerned (special mildness of climate, existence of beaches, possibilities of developing water-sports centres, hinterland, etc.).

c) A considerable building programme concerning accommodation facilities will be undertaken to provide 30,000 beds with the emphasis on medium class accommodation (2 and 3 star)

In this respect State intervention will take two forms:

The State will intervene directly as a building Contractor and then as Manager, first for the priority development regions and secondly wherever uncertainty concerning immediate profitability prevents action by the private sector, for example; in the extreme south of Morocco where equipment and supplies difficulties expose hoteliers to certain risks. The direct intervention involving some 1,800 beds or approximately 6% of the total building programme, will serve as an example to private investors of what can be achieved and, in accordance with the general policy, this building programme will consist wholly of medium class accommodation, the aim being to provide Morocco with a chain of State-owned hotels operating at prices accessible to the average tourist.

Where the State does not act as a direct Contractor it will still intervene in order to direct investment schemes, whether by financing parts of projects which will be under private management (semi-official projects), or by granting benefits and aid to the private sector for the purpose of financing projects.

d) Improving hotel management and action concerning prices will be given special priority in order to make the hotel industry competitive; experience has shown in fact that this is probably one of the obstacles to the development of tourism in Morocco.

e) Training of personnel will be extended by means of both the existing schools and by the construction of three additional schools. Supplementary training will be given to the most promising pupils through a chain of hotel-schools, two of which will be situated in Tangiers and Marrakesh, during the Five Year period and also by sending personnel for periods of training abroad as is customary in neighbouring countries.

f) Finally, a group of measures will be adopted in order to improve the reception of tourists in Morocco itself and to develop the prospection of foreign markets.

Reception formalities will be simplified and improved (airport reception, car insurance "green card").

An adequate and low-cost transportation system, both international (charter flights) and national (coach tours) will be placed at the disposal of tourists.

3 - The industrial policy

The inadequate industrial development characterised, generally speaking, by its small share in the gross national product and, qualitatively, by the lack of integration among different sectors, the functioning of which depends too much on foreign supplies and markets, constitutes a major handicap to the Moroccan economy. While agriculture will represent for a long time to come the mainstay of our economy and while, for this reason, it should be given priority, industrial development nonetheless is a prerequisite for growth. This is why the Five Year Plan is proposing first a method for studying industrial projects, application of which has led to the main lines of what should constitute an industrial policy being specified.

The industrial policy will depend on a more thorough and selective investigation of projects than has been the case in the past. To this end a "programme planning unit" has been set up within the Ministry of Industry, the function of which will be threefold :

Prospection of the possibilities of inaugurating projects in relation to national resources and home and foreign market outlets.

Analysis of the advantages and disadvantages of projects under investigation.

Selection of the most profitable projects. Profitability is meant in the wider sense of the term, by examining the valorisation of natural resources and creating an incremental value, not only in the branch in question but also in other upstream economic branches. To this end a selection criterion was adopted - the benefit to the economy per unit invested.

Application of this method to existing projects enabled a provisional list of these to be drawn up (which can be revised if new, more profitable projects come to light) and the trends in the industrial policies to be specified.

Industries which appear to be of the most value to the economy and which, therefore, should be given priority encouragement are the under-capitalised and principally export-orientated industries. By contrast the setting up of heavy industries and, at the other end of the scale, of "assembly industries" should only be envisaged with considerable circumspection and only where their value to the economy has been proven.

The Moroccan economy is, in fact, characterised at the moment by an abundant supply of labour, a scarcity of available capital and a restricted home market where the possibilities of replacing imports by locally manufactured products are becoming less and less. These three restraints therefore led to a search for the least capitalised industries employing an extensive labour-force and working primarily for exports. Practically the ideal situation is where an industry ensures a valorisation of local raw materials, for example agricultural products such as citrus fruits, provided, however that the industry is sufficiently competitive and that its sales organisation abroad is sufficiently effective to enable it successfully to meet local competition.

Although now becoming less and less the possibilities of replacing imports by local products will be investigated. This will usually take the form of expanding existing and generally under-capitalised industrial units, based either on the exploitation of local products or by extensively valorizing local products or again by extensively valorizing imported unfinished products: small mechanical engineering and chemical undertakings, cement works, oil seed processing plants.

While the setting up of medium-capitalised industries such as cellulose and chinaware undertakings can be justified to the extent that these industries, by their integration with the rest of the national economy, ensure a high valorisation per unit of investment, the setting up of heavy industry undertakings should be considered only with extreme caution wherever they necessitate considerable capital expenditure which is usually greater than the country's economy can stand. To be profitable these industries need above all either an extensive home market or exceedingly competitive prices to facilitate exports.

The existence of a home market (sugar) or the possibility of an extensive valorisation of local raw materials led to the planning of heavily-capitalised industries in these sectors. However, these projects still have to be profitable vis-à-vis current world prices. The setting up of assembly industries, the advantage of which obviously lies in providing employment at little investment cost, will only be encouraged if accompanied by conditions of productivity such as to enable prices to compare favourably with world prices (e.g. assembling radio or television sets).

The extensive arsenal of measures (direct or indirect) at the State's disposal for implementing its industrial policy will be improved by ensuring a wider selectivity with a view to increasing their efficacy.

Organising a reception policy for investors, providing a climate of confidence, development of the policy of incentivation and reorganisation of the direct State intervention machinery are the principal elements of this overall policy structure which will also depend on efforts in the fields of training, productiviy and marketing.

Investors will be given an improved reception as a result of the setting up of an "Investors' Reception and Advisory Centre" which will centralise the information concerning regulations, fiscal and economic matters which will be necessary to enable investors to come to their decisions.

The criteria of the incentivation policy will be reviewed on the basis of selectivity. The general principle which will guide the public authorities will be the apportioning of aid according to the anticipated effect on the national income, in respect both of reviving activity in certain sectors operating below capacity and of realising new projects. The modalities of this policy will be determined.

- The Investment Code will be revised.

- Customs protection for local, recently established industries which, deprived of the stimulus of competition, often became slack, will be gradually reduced in relation to the date on which the industries in question were established.

4 - Other investments

The investment on infra-structure incorporated under the Plan is mainly intended first to maintain the existing structures in good working condition to meet the needs of specific projects in the fields of agriculture, industry and tourism and, in certain cases, to meet increasing traffic loads deriving from the growth in output and increased imports.

The housing policy of the Five Year Plan will attempt above all to stabilise populations in the production areas through an extensive rural housing programme, whilst in the urban sector an effort will be made to halt the growth of the shanty-towns.

Finally, investments on public health provided for in the Plan will be aimed principally at safeguarding the existing structure and consolidating the development achieved under the Three Year Plan.

Part 2 - The financing policy

In its planning techniques, the 1960-1964 Plan was marked by considerable progress in its analysis of the flow of products between the various sectors of the economy but this analysis of inter-sector trade was not followed up by a similar analysis concerned, not with the products themselves, but with revenue. The flow of revenue, the break-down of savings among the various elements and the financing of public operations was only touched on very generally, insofar as the rate of national savings necessary for financing the overall investment was concerned. Similarly, the Three Year Plan studied the financial questions within the very general framework of the volume of savings necessary.

As stated previously, the question of financial equilibrium by contrast, was given very special attention during preparation of the 1968-1972 Plan. First, the financing of State operations was investigated in detail both in connexion with fiscal revenue and with operating expenditure. Secondly, the financing possibilities were studied in their various forms: taxation, loans savings for work purposes or external aid.

It was then the turn of the Financial Policy Committee to go one stage further by commencing the study of appropriate measures to bring together the necessary financial resources and to ensure their distribution in accordance with the objectives of the Plan. The work of the Committee was directed towards three aspects: an increase in savings, the question of credit and the question of taxation.

1 - Accumulation of National Savings

We have seen that the rate of national savings should rise from 10 to 14% over the Five Year period; the achievement of such an increase presupposes that recourse be had to all possible forms of saving. It would obviously be unrealistic, for example, to expect an increase in private saving alone. The Financial Policy Committee, therefore, attempted to explore all possible solutions, from the standard formula of deposits in Savings Banks to saving for work purposes.

a) Private saving

It is acknowledged that a considerable proportion of private saving is directed into channels which are unprofitable to the country's economy (purchase of jewellery, speculative land investment, excessive accumulation of reserves...). Appropriate fiscal measures should be investigated for the purpose of discouraging such unproductive investments and possibly of penalising speculators on the betterment values realised.

A savings policy also implies a selective attitude towards consumer credit. While this system may well encourage savings for the purpose of acquiring durable goods it nevertheless requires to be directed mainly towards elements favouring production and the country's investments, in other words towards credit sales of small machinery and consumer goods comprising a sufficiently large share of the national valorisation.

Side by side with this indirect incentivation an increase in savings demands even more a positive action of prospection and information on an extensive scale among the whole of the population: active and constant propaganda among the masses and even basic education in schools to encourage the use of Savings Bank books, systematic approaches to certain more or less privileged classes, for example holders of bank accounts, in order to emphasise the attractions of investment in stocks and shares, a form of investment which is still far too little known in Morocco.

With regard to the National Savings Bank, which appears to have a dominating rôle in this programme of education and encouragement, many difficulties of a legal or administrativ nature limit its ability to expand its activities and thereby t carry out more effective advertising schemes. Among the quest to be investigated or the improvements which may henceforth be planned, the following should be mentioned:

- The more rapid countrywide coverage of the Registry Offi

- The gradual extension to 250 post offices of the Nation Savings Bank operations, at present confined to 220 post offic

b) Institutionalised savings

The insurance and pension systems constitute a considerabl financing potential which, at national level, seems to be capabl of improved organisation or development, at least in several branches.

"Sundry risks" insurance

A solution to the problem of"mixed" policies, covering fire accident or liability risks, seems to be fairly close and the investigations carried out by the authorities now have to be submitted for the opinion of the professional organisations.

Better results from the obligatory "motor vehicle" insuranc do not appear to depend on a tightening of the penalties at present imposed by the regulations. Government action should r be directed towards strengthening checks on motorists and making them more regular.

The extension of accident-at-work insurance by making it legally obligatory is still at the stage of preliminary consultations among departments: the new procedure should be one of the objectives to be attained in the more or less near future and should comprise an effective system of control and penalities

"Life insurance"

This is the branch of insurance where development prospects are the most encouraging; in fact, according to certain estimates it seems possible to achieve an annual increase in company financ reserves ranging from 60-70 million dirhams.

The importance of the results anticipated emphasises the urgency of the measures which should control the new development of this sector and which comprise, in order of priority:

- the final drawing up by specialists of adequate standard-contracts which have already been studied and which should increase both private life insurance and combined insurance in both Moroccan and foreign sectors ("mixed" contracts, or "combine contracts...).

- the joint finalising of the regulations which are also being prepared concerning these contracts and also the tax incentives to be selected from among those demanded by the professions.

- the institution by the companies of the necessary means for increasing insurance sales, particularly in respect of qualified staff.

- the launching of a publicity campaign under the aegis of the Public Authorities and the professional organisations.

Pension system

At the present only Government civil servants benefit from any pension system. Staff of the public undertakings and offices cannot become affiliated to this system for both legal and practical reasons, which has resulted in a profusion of special funds.

The setting up of a single system would seem, however, to have been the main idea behind the creation in 1959 of the"National Pension and Insurance Fund" (C.N.R.A.).

The major reason for the limited activity of this organisation lies in the system of capitalisation applied. This has not received the approval of the professional organisations because of its inadequate safeguards against the consequences of monetary devaluation.

Work has already been carried out which recommends certain reforms, specifically the setting up of a system of payments which links increases in pensions to those of wages. This work has led to draft regulations being drawn up"concerning the setting up of a collective system of pension allowances for the permanent staffs of certain Offices, public undertakings and public State and Community departments by instituting an Equalisation Fund for collective income and allowances". The approval and setting up of this new system should be expedited in such a way that it could start effective operation at the beginning of 1968.

c) Development of stocks and shares and other forms of investment

The growth in savings which is to be expected from the above measures demands that these measures be accompanied by a strengthening of all the factors likely to mobilise this capital. The expected results in this field will doubtless be the fruits of long and painstaking efforts in view of the ignorance by the public at large of certain forms of investment. Considerable imagination will also seem to be needed in order to finalise planning or new schemes of an institutional or practical nature or even of regulations. In certain respects schemes already exist which only require approval; in other respects current investigations will have to be continued either by additional consultations or by a decision in principle being adopted; in respect of others again, schemes adopted have not progressed beyond the stage of working assumptions. In fact this is only a non-limitative list of proposals, arbitrarilly prepared, which the Financial Policy Committee is in a position to put forward.

Market structures

In this respect, considerable legislative achievements have recently been made or are at present being completed.

These are firstly regulations authorising the setting up of private investment companies and a Public Company. These intermediate organisations should encourage savings by offering their subscribers the advantages of security of funds and easy withdrawals. The Public Company has already started operations and the private sector will doubtless be encouraged to follow this example more rapidly if the activities of these companies are, as planned, accepted as a use for the future "investment reserve".

Rational and effective reorganisation of the financial market demanded the setting up of a stock exchange in the form of a public undertaking with legal form and financial autonomy. It was only after it had been set up which has just taken place, that the supply and demand of capital could be effectively confronted under satisfactory conditions, involving the obligatory intervention of officially approved intermediaries and excluding other parties.

Distribution and diversification of the market instruments

An increase in savings is largely governed by a wider distribution of stocks and shares among the mass of the population. This objective presupposes that certain classes of investment be accessible not only to major investors (banks, insurance companies, financial bodies), but also to the private individual. This applies to the issue of Treasury bonds or those of public undertakings. The experience is worth trying and even repeating as, while these results appear to be increasingly encouraging, this experience could considerably influence the subsequent behaviour of savers and encourage private borrowing companies to follow the example of the public undertakings.

A wider distribution of stocks and shares involves also quite a marked diversification in the type of loan, either in terms of duration or appeal in order to attract the interest of larger number of investors and to be accessible to them. The new procedures suggested concern:

. Short-term stocks

This would involve mainly a public issue of Treasury bonds at 6 months or 1 year or again of graduated interest bonds. The specialised investigations, already out of date, carried out into the terms and administrative problems of these issues should be brought up to date.

. Long-term stocks

To the more current forms of loans or public or private share-holdings (stocks and shares), may also be added others where foreign experience has sometimes shown the example. Three of these are the most frequently mentioned:

- Lottery (premium) bonds which, in fact, are of greater attraction to private individuals than to the larger investors. However, to the extent that its success is linked to the size of the prize this type of security would seem to be reserved for fairly large issues otherwise the operation will become too costly for the borrower.

- Prepaid interest bonds which are similar to the system of cash certificates issued by private banks and the present Treasury bonds.

- Obligatory capitalisation bonds which, through compound interest, ensure that a substantial and relatively rapid capital gain is obtained which can satisfy the speculative needs of certain investors more than an annual income.

. Other forms of investment

The institution of a system of house-saving should not necessarily be overlooked in spite of the low national per capita income. Certain social classes may well be interested in such a system depending on the more or less advantageous financial conditions to be determined (amount of personal contribution, rate of interest on this contribution, duration of loan...).

Increased trading in securities

The derisory figure for the transactions recorded by the Quotations Office in Casablance - 17 million DH in 1966 - is sufficient to illustrate the present narrowness of the stocks and shares market. Thus it is by taking action in respect of supply and demand, by various incentivation measures, that growth in trading will be encouraged.

. Increasing offers of stocks

Generally speaking, the lack of negotiable shares is mainly due to the marked preference of undertakings for articles of association of a personal or family nature, to the reticence of certain directors in having their firms publically quoted and to the inadequate capitalisation of many companies.

- As far as company articles of association are concerned the only possible incentives would seem to be in the field of taxation. The same applies to the bringing up-to-date of company capital when linked to the system of revaluation of balance sheets. Under the present system this is first optional on the part of the enterprise and secondly subject to the approval of the Ministry of Finance and the application of certain co-efficients. The reform to be carried out could either be confined to revising the curr co-efficients or be more daring by making revaluation obligatory over a certain given turnover.

- With regard to the extension of admissions to Public Quotations, it would seem preferable to wait until the organisation which will administer the new Casablanca Stock Exchange has fixed the new introduction modalities.

Increasing the demand for shares

In this field, the taxation system only offers a poor incentive margin because of the non-existence in Morocco of specific taxes on investment income. The only case which has been raised is that of holding companies as these firms are only exempt from double taxation on income derived from their subsidiary companies when they have at least a 30% share-holding. However, in view of the more favourable rates which have been recently granted a fresh examination of this question will require a certain time in view of the risk of abuse resulting from the low share capital of many companies.

A very interesting prospect, by contrast, is a scheme which is very well advanced and concerns the setting up of an obligatory "investment reserve". Among the uses being planned for this reserve is the possible purchase of shares on the Stock Exchange by the Public Company and by private investment companies. The aim to extend its activities to other securities is still meeting certain objections. This scheme could have a considerable effect on the volume of transactions in view of the amount of capital drawn off by the new reserve - 20 to 30 million DH a year - even if the latter were devoted mainly to direct investment in the undertakings concerned. It has also been proposed that companies could use this opportunity to buy back their own shares.

The incentives planned could only apply to the home demand. To the extent considered compatible with the Balance of Payments situation, the present restrictions on the possibilities of retransferring funds, which discourage investors to invest foreign capital in Morocco, should be eased. Among the measures which may be adopted in this respect but which still require a decision in principle, the appropriate authorities are studying extension of the automatic guarantee of retransfer - but after a certain delay- to purchases of or subscriptions to Moroccan stocks and shares financed in foreign currency, an advantage hitherto reserved for investments approved by the Investment Committee. A similar measure should be adopted in favour of "capital" accounts which at the moment are not transferable with the exception of the annual amortisation of funds invested in 10 year bonds.

d) National development loan

There is no doubt that in a country where the average per capita income is no more than 900 DH, it would be unwise to expect too much from voluntary savings. A loan scheme should therefore be considered in conjunction with the action on the promotion of savings which has been described above. This relatively new scheme will doubtless have to be used with caution;its rates should be moderate and the levy should be applied not to actual income but rather on increases to it; a person whose monthly income is raised by 100 DH would more easily accept 50 DH in 5 year interest-bearing bonds (and 50 DH in cash) than a person who receives no rise and for whom a loan of 50 DH would necessarily involve an immediate drop in the standard of living. In the first case (levy on wage increases) the standard of living would simply increase less than expected with the prospect of recovering the balance later. It is certain however that even in the second case theperson would prefer a loan scheme to taxation, which would lower his present standard of living with no prospect of any subsequent recovery.

e) Saving for work purposes

The interest in promoting work-savings in a country characterised by considerable under-employment is not difficult to imagine. Mobilising work-savings, in fact, consists of putting the unemployed population to work but by giving them deferred remuneration. Workers would receive a credit which , in principle, is only payable when the production obtained through the workers' efforts actually appears. Once this principle is accepted many means of applying it may be considered: only part of the payment could be deferred, the remainder being paid immediately in the form for example of foodstuffs; the part deferred would bear interest but at a higher or lower rate; it may or may not be realisable, or alternatively realisable after a certain period; it may or may not be graduated and interest could be payable in advance or alternatively capitalised. The practical applications are thus extremely varied.

On the otherhand although there is no shortage of labour, the scheme has certain limits; these, however will not be reached for some time. It is probable that not all investments will be suited to this mobilisation of manpower, but when all the investments in agricultural development and third class roads are totalled up it is clear that the volume of work is such that the limits of the scheme are far from being reached. The scheme moreover seems likely to succeed as experiments of this type have already been highly successful, whether this involved upaid working days under the National Development programme or work carried out within the framework of community development. The conditions appear therefore to be present for work-saving to be extended. Financing the country's investments will thereby be facilitated.

2 - Question of credit

The need to direct the available financial resources towards the most useful employment should result in the continued improvement of the structure and the credit policy.

a) The credit distribution structure

Certain progress should be attempted in this field specifically in connexion with the following:

- The network of pay-offices: it will certainly be worthwhile to examine the network of pay-offices in order to avoid both any deficiencies or any superfluous banking facilities in the various regions.

- recruitment of staff which sometimes is difficult.

b) Information

No programme of concerted action can be carried out without prior adequate information. Although the credits granted by the special Organisations are generally well-known it is desirable that a systematic recording of all the financing means be drawn up. Improvements should also be made to the system of credit advanced by Banks; this credit, unless subject to a file specially forwarded to the Bank of Morocco, is only recorded in terms of the amount, duration and the occupation of the borrower. It is frequently impossible to assess the economic justification and value of this credit in terms of the debtor's situation.

c) The selection of credit

The principle to be observed in the selective encouragement of credit is laid down by the Plan which normally gives priority to schemes and projects which will ensure the maximum growth in the national income. The various sources of financing should also be co-ordinated; whatever guarantee is offered, credit should only be granted once the borrower has proved that he himself has made an adequate contribution from his own funds and that wherever possible, he has approached the savings market direct. Furthermore the modalities of the credit should be suitably adapted to the justified need, namely in respect of the duration of the loan and excluding any transation the successful completion of which appears to be doubtful from the outset. These principles are already applied in Morocco but their definition and implementation demand further progress being made and they should always be adapted as the Plan proceeds.

The simplest and most effective selective action is at present at the level of the public and semi-official undertakings. Loans by these organisations should be more diversified in terms of the amount, cost, duration and repayment conditions in many sectors, particularly in the agricultural credit sector and in that of industrial and hotel plant and installation credits.

In conjunction with this the means of intervention by the Bank of Morocco should also be extended. The regulations on rediscount access now enable the rate of interest, the duration and amount of credit to be controlled, particularly where the credit is the object of private demands for rediscounts acceptance; by contrast, measures may prove to be desirable in respect of credit benefiting from a global agreement by the Issuing House. As far as rates of intervention are concerned, it would probably be well worthwhile to find the means of more effectively encouraging certain categories of credit rather than others by a greater differentiation in rates and based more closely on the economic justification of transactions. Finally, the general supervision of banking activities which were reorganised in 1967 should provide an effective means for the selective direction of credit. Provisi are being studied to enable the Bank of Morocco to ensure that Bank assets always include a minimum proportion of funds to meet the criteria of good management. Definition of this proportion and of these criteria insofar as they ensure preference being given to the sounder class of credit, constitutes one of the objectives which should be achieved in the very near future.

d) Specialised credit

As far as agricultural credits are concerned, first the provisions adopted in 1967 in favour of small farmers should be improved and where necessary extended. Furthermore an attempt should be made to reduce the cost of credit, particularly by systematically calling for repayment of loans due; however, where a study of the file shows that repayment prospects are slim it is obviously better to adopt the procedure of straight-forward subsidies.

In respect of credit for industrial and commercial plant, the B.N.D.E. plays the dual rôle of technical advisor, and catalysing agent, for transactions and direct financing agents. The value of developing particularly the first of these rôles by leaving the main banks to contribute to a large extent to the instigation and financing of loans should become much greater in the future, especially as the actual financial resources of the B.N.D.E. are not inexhaustible. Extension of credit for commercial and industrial plant by means of medium-term rediscountable credit from the Banks would be helped by a suitable adjustment of the rules applicable to this type of credit, particulaly as far as the conditions for discount acceptance by the Bank of Morocco are concerned.

With regard to credit for hotel and tourism equipment two questions deserve further investigation: participation by the banks in pre-financing the hotel and tourist industries and technical ai given to prospective investors; these functions should certainly b developed.

e) The resources of credit undertakings and loan conditions

The new regulations on bank deposits prescribed in the Decree of October 1967 modify certain scales of rates in favour of fixed deposits and the withdrawal conditions are also improved. It was not considered possible for the moment to reduce the remuneration of deposits at call but this will not be overlooked if it subsequently appeared advisable further to strengthen the measures for reinforcing the stability of bank resources. Bank resources proper will be governed by the finalised regulations prescribed by the recent banking laws concerning minimum bank capital.

Finally, there is no doubt that the present scale of rates of interest, fixed by inter-bank agreements, only shows a relatively minor difference between the minimum and maximum rates applicable, the first for reduced risk transactions and the second for more doubtful credit. This question should be studied both by the monetary authorities and by the profession.

3 - Fiscal resources

A study of public finances showed that the Moroccan fiscal system was only slightly progressive i.e. that at a constant fiscal system (in class of taxation and rates), fiscal revenue increases at appreciably the same rate as the gross national product; (other fiscal systems, by contrast, are progressive in the sense that revenue increases faster than production).

The results to be expected from encouragement of voluntary financial savings will be relatively limited because of the strong consumer inclination of private individuals; the national loan and work-savings which are new in concept will require certain experimentation before fulfilling effectively their rôle in financing investments. It is probable therefore that the need for taxation will impose itself. Investigations in this field may take three forms:

a) Improving the yield of the fiscal system

It appears that substantial results can be obtained in relation to the improved yield of the fiscal system by simplifying certain scales and procedures and by effecting certain controls (particularly by invoices). The appropriate authorities should look into every possibility of simplifying fiscal procedures in order to improve the yield from taxes and the productivity of the fiscal administration.

b) Fiscal planning (taxable bases, limitation of reductions)

c) Possible new taxes

The new fiscal resources needed could also be obtained from fresh taxes. The main taxes which can be considered are the following:

- Estate duties: replacement of the present duty on inventories drawn up after death by a proportional duty on these records, application of a graduated transfer duty on the total net inherited assets and a graduated scale of death duties applicable to the net share of each heir, legatee or donatee.

- Betterment levy on the incremental value realised on building land by private persons acting in a private capacity (this tax would apply mainly to incremental values where there is a certain speculative element).

- Special tax on the incremental value of buildings resulting from work carried out by the public authorities.

- Tax on the agricultural incremental value resulting from irrigation schemes.

It can be seen that the measures to ensure the financing of the Plan are as many as they are varied, ranging from straightforward propaganda in favour of National Savings Bank deposits to taxes on the incremental values of building land, touching on regulations for admittance to rediscounts and modification of the procedures for tax collection. Doubtless certain reforms, after detailed study, may have to be provisionally removed from this group of proposals. The essential is not to overlook the fact that financing the Plan cannot depend solely on one or two types of resources and that all the financing possibilities mentioned above should be explored. To call on the greatest possible number of measures available, involving thereby all social classes, will ensure that the resources needed for the objectives of the Plan to be realised will be obtained.

Important measures have already been adopted concerning the economic and financial policy, either under the last year of the Three Year Plan or at the beginning of the first year of the 1968-1972 Plan. Of particular note are the following:

- The institution in April 1967 of the Credit and Money Market Committee, a consultative organisation including representatives of the Government and the private sector, which is called upon to advise on all questions concerning credit, the currency, the money market and savings;

- The regulation of November 1967 reorganising the Casablanca Stock Market;

- The Royal Letter of 9th October 1967 prescribing that only projects should be incorporated under the Plan which Ministerial departments are in a position effectively to carry out between now and 1972; this decision will enable the rate of achievement of State installation projects to be increased.

- The setting up at the end of 1967 of the Budgetary Co-ordinating Committee which will ensure constant collaboration between the Budget Division and the Planning Division and will provide the essential liaison between the equipment budgets and operating budgets of the various Ministries.

- The decision to abolish carry-overs of any equipment credits remaining at the end of the year and only to reopen credits which are likely to be used up.

- Finally, the innovations of the 1968 appropriation bill which take over the whole of the profits reserves and stock released by the Cherifien Phosphates Office (O.C.P.) and also the entire yield from the tax on goods and services (T.P.S.) as revenue. The first measure will place the O.C.P. on the same footing as other enterprises in relation to financing of its investments as it will be repaid a subsidy from the budget to contribute towards its plant needs. Also bringing the T.P.S. under the budget (a proportion being paid as a subsidy) will enable procedures to be simplified and will facilitate the drawing up of regional development plans.

CHAPTER 2 - THE TRAINING POLICY

CHAPTER 2

THE TRAINING POLICY

Part 1 : Improving the output of the general educational system

Part 2 : Reorganisation of the administrative training system

Part 3 : Development of training structures

Part 4 : Orientation of training towards priority sectors

Part 5 : General co-ordination of training

Part 6 : Adaptation of rural education

CHAPTER 2:

THE TRAINING POLICY

The needs of development, as under previous Plans, give major priority to the policy of training senior grades.

The present training system, however, will have to be improved. In fact the dispersal of effort, the overlapping of the work of different organisations and the system's unsuitability to the concrete needs of the economy restrict its output too much and create a certain imbalance between the structure of the needs required by development and the structure of the supply of workers and senior grades in various branches as produced by the training system. The result is a relative abundance of semi-skilled workers or even senior grades in certain branches (commerce, "literary" sectors, for example) side by side with a definite scarcity in the scientific and technical branches which are so essential for development. The case of rural education is striking: the education received by pupils at school (which they leave at the first degree stage) adapts them ill to life in their rural surroundings and they are likely to fall halfway between the towns to which they are attracted but in which they would only swell the numbers of unemployed and the countryside which to a certain extent spurns them. An experiment being carried out at the moment involving some 100 schools provides education which is adapted to the rural sector by adding to the general educational programme instruction on the rural way of life. It is also planned to set up rural training centres in the use of modern farming techniques.

It is therefore not quantitatively (because, as a result of the fairly advanced generalisation of education, the training system will produce by the end of the Plan a labour-force considerably in excess of requirements), but qualitatively where the educational system manifests itslack of adaptability. There are two consequences of this which are harmful to both the economy and society:

- the skilled labour which the economy can absorb is inadequate and thus technical assistance has to be maintained which delays Moroccanisation.

- An ever increasing mass of unskilled or semi-skilled workers is becoming available which increases the demand for employment which cannot be satisfied.

In order to remedy this the Five Year Plan will institute two types of reforms:

- limited, but immediately implemented reforms to improve the output of the educational system and better to adapt it to the priority needs of the productive sectors;

- reforms paving the way to a more extensive reform of the structure of the educational system linked to a reform of instruction but only the foundations of which can be laid during the Five Year period.

The reforms instituted over the Five Year period will enable the output of the present system to be improved and the Moroccanisation of senior grades to be continued. These reforms will comprise the following:

1 - Improving the output of the system;

2 - Eliminating overlapping of training;

3 - Developing professional training schemes in undertakings to complete the frequently more general training given by the authorities;

4 - Orientating secondary education towards priority sectors;

5 - General co-ordination of training by the Secretariat of State for Planning and the Training of Senior Grades;

6 - Instituting a training system adapted to the rural sector.

1.- To improve the output of the general educational system, measures will be adopted:

- to raise the standard of teacher training, which was being neglected because of their scarcity, by improving and extending courses in educational establishments and by refresher courses for those falling behind;

- to improve the frequently inadequate operating conditions in classes where there are too many pupils.

2.- The administration training system, the complexity of which is the result of numerous Ministries having their own structure, will be reorganised in order to avoid overlapping of efforts and to render the various structures more complementary to one another.

Up to 1968 the most obvious overlapping concerned the Ministry of Public Education and the Ministry of Labour. The former will specialise in general education and non-specialised technical training, whereas the latter will continue to fulfil certain specialised technical training functions (complementary and subsequent to the first). The main function of this task, however will be carried out by the undertakings.

3.- The main specialised technical training however, will be decentralised and take the form of apprenticeships in the undertakings themselves.

Students holding a certificate of primary education or a certificate of primary education plus one year in the first grade will be accepted by enterprises who will provide their professional training. This presupposes acceptance of the principle of obligatory apprenticeship. This obligation cannot be imposed haphazardly; it will only be instituted after a study of the labour market situation and introduced gradually. The Ministry of Labour and Social Affairs will be responsible for the modalities of its application. Technical studies in this respect are being undertaken at the moment and will define both the level of recruitment and the modalities for setting up the obligatory apprenticeship scheme.

4.- Orientation of training towards the priority sectors of the Nation will be increased at the secondary education stage. The modalities of the orientation policy will be determined by the appropriate Decrees.

Both during and after their training in secondary and higher educational establishments, students and pupils of Moroccan nationality will be directed towards the trades to which priority should be given under the objectives of the Plan for the country's needs. Pupils and students unsuited to the type of instruction they are being given will be restreamed during schooling towards other types of education better suited to their aptitudes.

This presupposes that registration in the higher educational establishments will be subject to this policy of orientation.

Scholarship grants, codified by another Decree, will be made in accordance with the need for senior grades determined by the Plan.

5.- The Secretariat of State for Planning and the Training of Senior Grades will be responsible at Government level for the overall co-ordination of the training of senior grades and professional training and for technical and cultural aid. To this end the Secretariat will be strengthened and will comprise:

- a study section responsible for ensuring liaison between the various professional training schemes of the other Ministries and organisations and for examining all the educational programmes for the training of senior grades and for professional training.

- a planning and scholarship section responsible for co-ordinating and controlling the orientation of pupils and students towards the various levels of training, in relation to need, and for adopting the necessary measures to allocate scholarships and grants.

- a Technical and Cultural Aid section responsible for examining and co-ordinating the whole of bilateral and multilateral aid.

- an Administrative Affairs section.

The modalities of this section's organisation will be specified in a Decree.

6.- Finally, adaptation of rural education will be continued. The present experiment concerning some 100 schools will be extend Rural centres will be set up where country pupils possessing a Certificate of Primary Education can receive practical rural agricultural training:

- training in the rational use of modern farming methods;

- the use of agricultural machinery (tractors and tractor-driven implements);

- new development procedures (fertilisers...). These centres will be set up in model farms among those recovered by the State. Training will consist of general instruction from five to ten hours a week and will be considered basically as a "maintenance" programme. Instruction will be given by the technical staff of the Ministry of Agriculture who will themselves receive training in teaching methods. A certificate of professional training will consolidate these studies.

These measures however are still limited in scope in relation to the extent of the problem.

Extensive reforms will be instituted under the Five Year Plan by an Ad-Hoc Committee. The first task of this Committee will be to reshape the educational system (programmes, modalities) to adapt it to the needs of a rapid development and to the actual requirements of the Moroccan economy.

CHAPTER 3 - ADMINISTRATIVE ACTION

SECTION III - THE MEANS

CHAPTER III - ADMINISTRATIVE ACTION

Part I - **Administrative decentralisation**

Part II - **Administrative simplification (Item 6 of the Royal Directives of April 1965)**

Part III - **Reform of the Ministerial structures**

Part IV - **Reform of the status of State and public undertaking staff**

Part V - **Programme of technical aid**

Part VI - **Economic and Operating Budget Headings**

CHAPTER III - ADMINSTRATIVE ACTION

Even when consolidated in the form of well thought-out projects, a Plan is unlikely to materialise unless accompanied by the appropriate measures and reforms. Indeed one of the most serious and frequent deficiencies in programme planning is its presentation in the form of a catalogue of projects and financial estimates but unaccompanied by the means necessary for their achievement. This is why it is essential to accompany all the objectives proposed with the necessary measures for their adoption.

It is only too frequently evident that the present administrative machine is not as efficient as it should be. This leads both to a certain paralysis of action and to a relative wastage of resources; this is due to a large extent to excessively complicated procedures combined with an out-of-date structure which is no longer adapted to needs. The Five Year Plan should therefore bring extensive reforms to this sector to set up a modern administration functioning both simply and more efficiently.

Administrative decentralisation, simplification of procedures, reorganisation of senior grades, a rational policy of technical aid and the application of a functional system of accounts, among others, may help to make the administration efficient.

Part I - Administrative decentralisation

This question is being investigated at the moment by a Specialised Committee which has the task of:

- first proposing the measures to be adopted for the Ministries and, where necessary, the organisations coming under their responsibility, to be represented in each Prefecture and Province by"outside departments" wherever the setting up of these latter appears necessary, specifically from an economic and social point of view;

- secondly determining to what extent certain powers at present exercised by the central government can be delegated to their outside departments;

- and finally, of assessing the possibility of conferring on the Governor increased powers over the outside departments set up in his prefecture or province.

Part II - Administrative simplification

This concerns finding a solution to the problems dealt with in item No. 6 of the Royal Directives of 20th April 1965 and also in the speech by His Majesty the King on the 12th July 1966 at the Moroccan Administration School.

The administration, which is the executive instrument of the Political Power, disposes of senior grades who are still inexperienced in the field of management and administration. By contrast, the intellectual level of users of the public service is sometimes inadequate for a normal and healthy understanding of the laws and regulations. This necessitates:

- basing henceforth the conception and preparation of general and special regulations on simple but valid lines, bringing these regulations within the range both of the services responsible for their implementation or control and of the users who will benefit from them. In this respect the appropriate authorities (namely the Legislation Department), will be responsible for simplifying as far as possible the basis and procedures of the laws and regulations in order to render them of more practical implementation and simpler to understand without, however, this desire for simplicity leading to rules which are too elementary.

- revising out-of-date or inadequate laws and regulations. This is a very important point which is given due emphasis in the Royal Directives of 20th April 1965. Efforts should be pursued in this sector and the public authorities should reshape and simplify their regulations.

Effective implementation of laws and regulations demands:

- straightforward and simplified procedures which should be finalised in collaboration with the representatives of all departments concerned;

- revision of the internal and external administrative circuits and replacement of the latter by a series of means to be established by prior agreement with the Ministries.

Part III - Reforms of the Ministerial structures

Effective implementation of laws and regulations requires not only the simplification of procedures but also simplification of the structures of the Ministries and services. This reform should be accompanied by a rational redistribution of powers to avoid disputes and conflicting spheres of action, particularly in relation to economic administration.

This reform of the Ministerial structures demands officials of a high intellectual capacity capable of carrying out the administrative duties in the exercise of the major responsibilities at the head of Directorates and Departments.

Part IV - Reform of the status of State and Public Undertaking Staff

Reform of the senior grades situation has already been carried out in respect of the public authorities' staff. In fact the new status of the various senior grades of the Administration was recently published and came into effect on the 1st April 1967. This reform, however, is still to be completed by a reshaping of the pension scheme, the indemnity system and by revision of the status of staff in the public undertakings.

a) Reform of the pension system

A bill for the reform of the pension system has been drawn up. It has received the approval in principle of the Government. This bill is intended to achieve a triple objective:

- adaptation of pensions legislation to national realities;
- simplification of the existing system;
- improvement in the situation of retired staff.

b) Reform of the indemnity system

The objectives aimed at in this field consists of:

- adopting an indemnity policy on the basis that an official's salary relates both to his work and to the obligations attached to his function.

- grouping the indemnities the retention of which is justified under two or three main headings.

- standardising the regulations concerning functions and management.

Reform of the indemnity system is now well advanced. This reform also concerns the whole of the technical staff (State engineers and technical assistants, doctors, veterinary surgeons, architects) who have been granted technical bonuses, the amount of which is based on a percentage of the basic salary. Similarly, the system of indemnities for appointments has been differentiated according to the province and the town.

Reform should be carried out of the situation of the other grades as soon as possible in order to provide an overall solution to the question of remuneration (salaries and indemnities).

c) Reform of staff control

This control is exercised at the moment by the Ministry of Finance, the Controller of expenditure committments and the Public Offices. The control is necessary although it appears to result in some difficulty for the authorities. It seems advisable therefore to examine whether this system could not be simplified in order to speed up procedures and eliminate any possible overlapping.

d) Reform of staff grades in public undertakings

The regulations legally consolidating this reform have already been published in the "Bulletin Officiel" but have not been listed before; they are·

- The Dahir No. 1.63.132 and the Decree No. 2.63.165 of 16th November 1963 in relation to senior grade and management positions in various undertakings;

- the Decree No. 2.63.166 of 14th November 1963 establishing the standard-status of staff in the semi-official sector undertakings.

The standard-status has been found to be technically impracticable and a Committee has been charged to re-examine the question.

Part V - Technical aid programme

Sources of aid are numerous on a bilateral level as some twenty odd general conventions have been concluded outlining the framework of the possibilities offered. Bilateral aid is directed as much if not more towards the functioning of services by seconding foreign personnel as to the realisation of specific operations. The principle of the collaboration of various countries in meeting technical aid requirements under the present Plan has been achieved and recourse to this aid will be in relation to the needs which become evident. It is for this reason difficult to put a figure to this aid in spite of the qualitative and quantitative importance that it will represent.

Apart from the aid which may come within the framework of a possible technical collaboration agreement with the European Economic Community, the main multilateral source of aid is U.N.O. and its specialised institutions. It is by taking account of the nature and possibilities of aid from all sources which will enable the multilateral institutions to be used to the best advantage for the schemes outlined in the Plan.

The possibilities of covering technical aid needs under the Plan are substantial but inauguration of this aid presupposes that the internal structures responsible for co-ordinating this aid will function properly. These structures do exist. It is for them to ensure particularly that:

- the list of requirements is kept up-to-date;

- the authorities are informed of the various aid possibilities;

- requests are formulated, centralised and forwarded by observing internal procedures and those laid down by the regulations of the organisations to which they are addressed;

- the operation of aid programmes be closely scrutinised to ensure that mutual obligations are observed and in order to assess the achievements;

- requests made are in accordance with the objectives of the Plan.

Part VI - Economic and operating budget headings

It is proposed to incorporate economic and operating headings and programme classifications in the public budgets. The economic heading aims to break down budgetary operations according to their economic nature, whereas the operating heading will serve to list public expenditure according to the tasks to be carried out by the public authorities. The heading by programme and by project, while being an exact reflection of the Plan, will be a complement to the operating heading.

This reform will apply not only to the general budget (operating equipment and revenue) but also the supplementary budgets, the special account budgets, the autonomous public undertaking budgets and to those of the local communities.

The first result of this will be to ensure a perfect correspondence between the Plan and the Budget, to enable the public authorities to be constantly informed and to clarify Government decisions.

Secondly it will provide the framework within which the cost of the administrative services can be calculated. The knowledge of this cost will enable, where necessary, the management and productivity of the administrations to be improved.

It will also assist in the gradual institution of a national accounts system needed for drawing up a balance sheet account in the public sector. The public heritage, in fact, is an important factor governing economic development. It is therefore of the greatest importance that it be well known.

The departments and undertakings concerned will shortly be advised of the methods of classification which are at present being investigated.

Whether a question of administrative decentralisation, simplification of procedures or of a functional accounts system, it has been shown that considerable efforts are to be made during the Plan to ensure that the Administration is in a position to meet its obligations under the best conditions of efficiency and productivity. The merit of the 1968-1972 Plan will be to have drawn up a complete assessment of the problems existing in this field and to have prepared a solution to these problems.

CHAPTER 4 - IMPLEMENTATION OF THE PLAN

SECTION III - THE MEANS

CHAPTER 4 - IMPLEMENTATION OF THE PLAN

INTRODUCTION

Part 1 - Finalising the contents of the Plan and preparing it implementation

1. Finalising the projects
2. Finalising the measures
3. Co-ordinating the completion of the projects and measures.
4. Preparing the implementation of the Plan
5. Preparing the appropriation bill
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Part 2 - Control of the implementation of the Plan

1. Control of the carrying out of specific operations
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3. Overall control of the implementation

Part 3 - Five Year Statistical Development Programme

1. General population census
2. "Consumption and family budget" enquiry
3. Agricultural statistics
4. Census of undertakings
5. Records Offices
6. Budget Implications
7. The Measures

The relatively ambitious objectives of the Plan can only be achieved at the cost of considerable effort and extensive reforms. In His letter to Ministers of 9th October 1967 HIS MAJESTY THE KING pointed out that it had not been possible to achieve all the objectives of the Three Year Plan and insists that by learning from the experience of previous Plans the same should not be the case under the Five Year Plan. This emphasizes the importance of setting up new structures and administrative procedures relative to the implementation of the Plan. These structures and procedures should enable the implementation of the Plan and particularly the drawing up of annual development programmes comprising projects and the means of operation to be thoroughly controlled.

Until the recommendations of the Planning Committees are transformed into programmes of operation the successful completion of the Plan cannot be ensured. Thus it is particularly important that the work in this respect be extended during the first six months of 1968.

Decisions have been taken and discussions pursued concerning the new procedures to be set up for the implementation of the Plan:

- The setting up of programme planning units in the technical Ministries.
- The setting up of an Inter-ministerial Planning Committee.
- The setting up of a Budget Co-ordinating Committee.
- Preparation of the annual Plan.

Action by these bodies should have two aspects. First they should finalise the contents of the Plan and prepare its implementation and secondly they should ensure the control properly so called of the implementation of the Plan at the operations level and on an overall basis and adjust the objectives wherever needed. To be carried out, however, under satisfactory conditions this control presupposes an improvement in statistical data. (This improvement moreover will also facilitate preparation of the next Plan).

Part 1 - Finalising the contents of the Plan and preparing its implementation

1 - Finalising the projects

The report of the Five Year Plan comprises a number of projects which form the physical body of the Plan. The list of projects, however, can certainly not be considered as final and definitive. Techniques change and needs become modified; at the provisional analysis stage therefore when the report of the Five Year Plan is presented, it cannot be known for certain whether the list of projects contained in the report will be realised as such. This is particularly true for the private sector but even the State finds it necessary to make adjustments as investigations continue and time goes on.

In order for development to proceed smoothly, projects should be prepared and programmes drawn up continuously by sector. This demands that special machinery be set up for this purpose. The drawing up of programmes by sector and the preparation of projects falling to the technical Ministries and to the public or semi-official undertakings requires this machinery to be set up inside these organisations by establishing programme planning units.

The programme planning unit will fix the norms and criteria to be adopted by the Ministry departments in the drawing up and implementation of the projects and these should be put in negotiable form as soon as the projects' profitability to the Nation has been established; the unit will fix the amount of investment and of the operating budgets and will investigate the various investment possibilities; after consultation with the directors of the technical departments the unit will lay down the norms which the technical departments should adopt in order to assess the state of progress of the project; finally, on the basis of the reports of the technical offices the unit will periodically draw up in good time sufficiently detailed reports and evaluations concerning the overall programme with which the Ministry is concerned.

The work of the programme planning units will be completed by the setting up of a Central Research Bureau the purpose of which will be to:

- prepare economic and financial studies
- draw up investment projects up to the detailed programme of operation stage;
- organise or reorganise administrations or public or private undertakings;
- provide staff.

At the same tine a Reception and Advisory Centre will be responsible for providing information for investors on the advantages and guarantees available to them, particularly those which may be of special interest to them. The Reception Centre will attract, receive and advise investors and direct them to the organisation best suited to meet their particular requirements for enquiries or financing.

2 - Finalising the measures

The need for finalising the measures should be at least as evident as that of projects. Measures are frequently only proposed in the form of a report on the need for them and they then have to be consolidated by implementation or legal regulations.

This work requires liaison between the representatives of many organisations but it is essential that responsibility be assumed for its implementation. In order to do this and to avoid the proliferation of research or decision-making centres and also to ensure rapid progress, the programme planning units therefore have all been appointed.

3 - Co-ordinating the completion of the projects and measures

The essential co-ordination of the work of the programme planning units will be ensured by the setting up of an Inter-ministerial Planning and Budget Co-ordination Committee consisting of the Prime Minister, the Minister of Finance and the Secretary of State for Planning. This Committee will be assisted first by a Sub-Committee for Budget Co-ordination, details of which will be given below and secondly by a Sub-Committee for Planning under the chairmanship of the Director of Planning and including all the Heads of the Programme Planning units and a representative from the Ministry of Finance. This Committee will be responsible among other things for drawing up the criteria and standardisation norms for the preparation of projects , sector programmes and the annual plans. Management of the Inter-ministerial Planning Committee will mainly fall to the Planning Division which will attempt particularly to improve the methods for studying projects, to assess the feasibility of the projects drawn up by the programme planning units and finally to study the measures for their implementation.

Special co-ordination in relation to agriculture will be ensured by an Agricultural Co-ordination Committee including the representatives of the Ministries of Agriculture, of the Interior, of Public Works, of Finance and of Planning.

4 - Preparing the implementation of the Plan

The 1968-1972 Plan cannot foresee the full details of its implementation and it is therefore necessary to draw up annual Plans which constitute certain sections of the Plan. The annual Plan will differ from the Five Year Plan by the individual and operational nature of its measures and projects.

The annual Plan will consist of:

- The public sector investment programme with a description of the material and financial objectives of the various projects, the programmes in relation to the various sectors and the general economic prospects for the year ahead.

- An account of the progress achieved in the previous year and the difficulties encountered in the implementation of the Plan.

- An indication of the measures needed for effective implementation of the Plan, both in the public and private sectors.

- Estimates in relation to the amount of private investments.

The annual Plan will be prepared by the Planning Division which will have at its disposal the projects of the programme planning units and all the necessary information.

5 - Preparation of the appropriation bill

The proposals from the programme planning units incorporated in the annual Plan will first be represented in the equipment budget; it is essential here to ensure correspondence between the Plan headings and the budget headings.

Secondly, the annual programmes will effect the operating expenditure, whether this are expenditure on staff and equipment needed to carry out investment, expenditure needed for the operating of equipment or for the public debt charges.

The co-ordination needed between the equipment budget and the operating budget and the inter-budgetary translation of the objectives of the Plan will be the responsibility of the Sub-Committee for Budget Co-ordination of the above mentioned Inter-ministerial Committee. This Sub-Committee, under the chairmanship of the Director of the Budget Division will have as its permanent members the Head of the Operating Budget, the Head of the Equipment Budget and a High Official of the Planning Division.

In addition, the officials who present the technical Ministries' budgets will be temporary members of this Sub-Committee for the period during which they present their budgets to the Committee. Each temporary member, representing a technical Ministry, will present simultaneously his Ministry's equipment budget and operating budget which will both be examined simultaneously by the Committee, one in relation to the other in respect of both the annual Plan and the resources available.

The Sub-Committee will also study the financing of the semi-official sectors transactions and the extent of the effect of the private sector activity on the public finances.

6 - Regional Planning

In addition to national projects the Plan will include regional schemes which are based purely on the needs and imperatives of the region. Those responsible for the Plan sectors should make contact with the regional capitals and acquaint themselves with actual needs and compare the results of their investigations with the concrete development realities required.

Furthermore the population should be made aware of the Nation's needs thereby better to understand its rôle and accept more easily the effort demanded of it.

It will be the task of the Inter-ministerial Committee for Land Utilisation to outline the country's development policy and to co-ordinate the regional development programmes. Presided over by HIS MAJESTY THE KING and consisting of the responsible officials from the various Ministerial departments, this Committee will have a technical study and programme planning unit and its secretariat will be provided by the Prime Minister's Office; it will furthermore be the task of the government authority responsible for Planning to set up, staff and co-ordinate the programme planning and statistical units at the Governors' disposal and subsequently to launch the actual work of regional planning.

The Funds or the Regional Development Companies will on their side have the task of financing certain specific regional development schemes; they will allocate the necessary credits for this purpose to the local representatives of the technical Ministries, of the local communities and of the public undertakings.

Part 2 - Control of the implementation of the Plan

1 - Control of the carrying out of specific operations

Whether concerning projects or measures it is essential to ensure control of the carrying out of specific operations.

As far as projects are concerned the problem is relatively simple as the machinery already exists. The programme planning units of the technical Ministries should at any given moment know the development stage of any project. The Inter-ministerial Planning Sub-Committee, therefore, can assess any position: the Budget Co-ordination Sub-Committee will examine the projects' repercussions on the budget.

As far as measures are concerned the procedure can be much the same except that liaison between decision-making and the appropriate implementation is frequently difficult. The Inter-ministerial Planning Committee therefore should be particularly concerned with control over the efficacy of the measures.

2 - Budget control of the implementation

Budgetary control of the implementation of the Plan in respect of public equipment or insofar as it has repercussions on the budget should be immediate; this should never be overlooked and it should be made as effective as possible.

In order to do this a continuous, rapid, operational and detailed analysis of the committments and allocations of both the equipment budget and the operating budget should be made.

The Ministry of Finance is naturally best suited to this task provided it is carried out according to the norms laid down by the organisations responsible for Planning.

3 - Overall control of the implementation

Neither control of specific operations nor budgetary control can give a sufficiently accurate picture of the implementation of the Plan and its success. A macro-economic picture is needed which is the responsibility of the Planning Division. This general study will form an integral part of annual Plans.

In order to carry out this work effectively, however, the facilities of the Planning Division should be increased; the national accounts system particularly will have to be developed and this presupposes an improvement in statistical data.

Part 3 - Five Year Statistical Development Programme

Within the framework of the Five Year Development Plan 1968-1972 the need has become evident to draw up an integrated statistical development programme with emphasis on the orientation and utilisation of statistics in order to meet Planning requirements. These planning requirements and others can be divided into six main headings:

a) - Human Resources: population and labour, distribution of income, living conditions;

b) - Material resources: inventory of the main resources;

c) - Current output and consumption;

d) - Public finance;

e) - Other financial statistics;

f) - Balance of Payments and external trade.

The development programme for the work of the Central Statistics Department was drawn up in relation to needs and priorities and also to the possibilities of implementation during the Five Year period. This programme includes large-scale operations and less important operations which will be carried out to improve the quality of existing statistics or the assembly of calculated data in the fields where these are not available. Only large-scale operations are dealt with in this chapter.

1 - The general population and housing census

Population censuses have been carried out regularly in Morocco since 1921. These operations were first carried out every five years but in 1950 the interval between successive censuses was increased to ten years. Account has to be taken, in fact, of the extensive facilities required (personnel, funds) to carry out an effective census of the population giving an accurate picture of the population situation at any given moment and to trace its development since the last census was made.

Population and housing characteristics have changed greatly since 1960 when the last census was made but the facts we now possess on the extent of these changes fluctuate considerably. One of the primary objectives of the 1970 census is, therefore, to measure the changes in the characteristics of private individuals and households to ensure a better approach to palnning economic and social development.

Apart from its direct usefullness for administrative and planning needs, the 1970 census will serve as a basis for the statistical enquiries into the various economic and social characteristics which will be carried out before the next census.

2 - Enquiry into consumption and family budgets

After several enquiries of a limited scope Morocco carried out a nationwide survey in 1959-1960 of household consumption and expenditure. The results of this enquiry were widely used for the preparation of the economic and social development plans. Because of the changes which have since taken place in the structures of consumption, expenditure and income, a new inquiry will be carried out between the years 1969-1971. This enquiry will attempt to provide information on a regional scale and not only on a nationwide basis as in 1960 on the consumer structures:

- consumption
- distribution and source of income
- bringing up to date and extending price indices
- nutrition

This enquiry will be spread over several years and this type of household enquiry therefore will become a permanent feature of the work of the Central Statistics Department.

3 - Agricultural statistics

Up to 1960 Morocco's agricultural statistics were a by-product of taxation. When the "Tertib" was abolished in that year a permanent agricultural investigation bureau was set up under the Central Statistics Department. At the moment the investigation covers the whole country and provides information on the areas, yields and output of the principal cultivations. At the same time as these data of a fluctuating nature are obtained an agricultural census will be carried out in 1971-1972. This will provide statistics on the structures of the agricultural sector by making a census and study of agricultural holdings throughout the country for a given region.

4 - Census of undertakings

4.1. - Record of establishments

The main purpose is to achieve an integrated system of current statistics on establishments. More detailed statistics will be provided for certain sectors (industrial, or establishments of over 50 employees) or for certain years only, by means of special enquiries.

The enquiries will be extended to cover the buildings, public works and commercial sectors.

4.3. - Enquiry into structures

In conjunction with the annual economic enquiries which will be carried out in the industrial sectors to provide current data (output, intermediate consumption, employment) an enquiry into structures will be undertaken in the main branches of industry and concerning mainly production capacities.

4.4. - Employment statistics

For a long time the only employment statistics available came from the periodic population censuses, statistics drawn up by the Ministry of Labour and above all from the results of specialised though limited enquiries. A more complete investigation into employment in establishments will be carried out in this programme. This enquiry will include questions on the following points: the structure of employment by nationality, sex, level of qualification, age..., wages and charges, average duration of work, stability of employment, permanent and temporary staff, variations in the numbers and wages of staff in certain specific trades.

4.5. - Use of the Ministry of Finance documentation

Whether a question of wages, taxes paid, employment, turnover, profits or amortisation, all the sources of statistical data contained in the administrative and particularly fiscal documentation of the Ministry of Finance should be systematically explored and utilised in close collaboration with this Ministry.

5 - Records Office

The normal work is concerned with different records each year, including motor records and rural taxation records. At the moment the capacity of the office is adequate as occasional heavy programmes can be dealt with (general record of establishments, enquiries into family planning, etc.).

However, the Records Office system and general capacity is unlikely to be able to cope with the volume of extra work needed over the Five Year period (Technical Assistance and Agricultural cards, enquiries and various censuses).

It will be necessary therefore to re-equip this office and a computer will probably be purchased.

6 - Budget implications

To carry out the Five Year Statistical Development Programme the appropriate credits, the annual schedule of which is given in the table below, will be needed. Credits in respect of the general population census and credits relating to the other operations are shown separately.

Year	1968	1969	1970	1971	1972	Total 1968-1972
	-	500	9,050	1,450	1,000	12,000

Specialised enquiries
(consumption, industrial, agricultural census)

Year	1968	1969	1970	1971	1972	Total 1968-1972
	-	500	500	1,200	800	3,000

This programme is relatively ambitious and proposes to fill the gaps in the statistics relating to several economic and social sectors. These gaps have frequently caused serious obstacles. to the work of the various Planning Committees. This programme, however, is also realistic inasmuch as when it was being prepared account was taken of the two major restraints: the financial resources and senior grades. In respect of the latter the efforts made by the Planning and Statistical Department for the training of economist statisticians will bear full fruit over the Five Year period. This will provide both the Planning and Statistical Department and the other public authorities and bodies with economist-statisticians for the programme planning and investigati units.

7 - The measures

7.1. - The Co-ordinating Committee for Statistical Enquiries

The setting up in 1959 of the Co-ordinating Committee for Statistical Enquiries (CO.CO.E.S.) greately facilitated the development of information and statistical co-ordination . Experience after several years of operation, however, has shown that the powers of the CO.CO.E.S. need extending. The Committee indeed should not only have the task of controlling the statistical enquiries of the public services but it should be a veritable Committee for the co-ordination of the statistical activities of all the public authorities and should entrust enquiries into particular questions to Working Groups appointed by it.

7.2. - The Statistical organisation

Taking into account the increased facilities, particularly of qualified staff, and the fact that the Central Statistical Department is continually extending the range of its activities, the present statistical organisation will be gradually modified over the Five Year period.

a) Decentralisation

Statistical technicians, having acquired experience during their work at the Central Statistics Department, will be seconded to the various Ministerial departments where their job will be to improve existing statistics, deal with any specific enquiries and provide the essential liaison between these departments, the CO.CO.E.S. and the Central Statistics Department.

b) Regionalisation

The new need for statistical documentation on a regional level requires the setting up of regional offices of the Central Statistics Department. The agricultural investigation offices at present installed in certain provinces who are responsible for making cenuses of agricultural statistics, will extend the range of their activities into other fields and will become regional offices proper, working in close collaboration with the central organisation.

c) The Study Committee for the Processing of Information

A balanced and standardised system for processing information is a necessary prerequisite for better management and increased productivity.

A Study Committee for the processing of information has therefore been set up under the CO.CO.E.S. and will be responsible for:

- co-ordination between administrations, public and semi-official organisation in relation to the processing of information, particularly by advising on any projects for setting up a records system;

- making staff and equipment card-indexes of the records offices and ensuring the training of qualified personnel at all levels.

APPENDIX

SUMMARY TABLES OF THE INVESTMENTS PLANNED

SUMMARY OF THE INVESTMENTS PLANNED

(1968-1972)

The following tables summarise the investments planned over the Five Year period, i.e. the financing.

State equipment budget	5,050	million	DH
State undertakings, local communities and State operating budget	2,158	"	"
Public credits	1,041	"	"
Total public capital	8,249	"	"
Private capital	3,203	"	"
GRAND TOTAL	11,452	"	"

From the point of view of the promoter these investments are broken down as follows:

State (equipment budget)	5,050	"	"
Other administrations	400	"	"
Semi-official sector	2,231	"	"
Private sector	3,771	"	"
Total	11,452	"	"

The present document contains two series of tables.

The first series of tables shows, by chapter and by summary, the investments listed under the State equipment budget over the Five Year period, year by year and by total, the annual break-down only being shown as a guide.

The second series of tables shows, also by chapter and by summary, the investments selected for the whole of Morocco but for the period as a whole and broken down by category of financing as follows.

1 - List of investments to be financed from the State equipment budget.

2 - Investments to be financed by the local communities (tax on goods and services), the State undertakings (O.N.E., O.C.P., R.E.I., R.A.M. port authorities, subsidiaries of the C.D.G.) and, by summary only, the State operating budget (major road maintenance). It should be noted that the State holdings in public or semi-official undertakings are listed under the equipment budget.

3 - Investments in respect of which the private promoter, the most frequently private or semi-official promoter, calls on public credits (C.N.C.A., C.H.I.).

4 - Summary of the investments of the first three headings which comprise public capital.

5 - Investments to be financed out of private capital, whether the promoter is private or semi-official. It should be noted that the investment grant allowed for certain private projects is listed under the equipment budget.

6 - General summary of investments.

It should be pointed out that with the exception of the investments scheduled under the State equipment budget, all these investments are shown as a guide and relate to estimates or forecasts.

CHAPTER 1 - AGRICULTURE

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Irrigated areas	122.414	148.451	132.407	132.055	135.810	671.137
Lower Moulouya	24.120	27.235	27.480	20.735	16.935	116.505
Rharb	15.720	15.910	12.500	15.865	11.365	71.360
Sebou	155	1.370	5.915	13.450	22.450	43.340
Tadla	23.750	40.650	26.202	13.780	11.780	116.162
Doukkala	15.860	10.355	5.835	5.195	6.195	44.440
Haouz	14.830	27.200	27.779	21.235	24.000	115.044
Tafilalet	19.100	13.605	9.361	9.395	6.585	58.046
Ouarzazate	3.570	8.390	6.770	9.820	10.820	39.370
Loukkos	455	1.420	7.365	8.380	12.380	30.000
Souss-Massa	4.854	2.316	3.200	13.200	13.300	36.870
Boq areas	106.163	107.870	114.447	115.890	127.555	571.925
Development Directorate	66.688	61.180	63.452	64.680	69.295	325.295
Other interventions (original stock seeds)	4.890	5.390	5.860	6.040	6.840	29.020
Waterways and Forests	24.240	28.260	31.140	34.180	39.680	157.500
DERRO	10.345	13.040	13.995	10.990	11.740	60.110
Stockbreeding	29.624	26.347	24.888	23.103	19.718	123.680
Production support operations	27.814	46.293	36.537	35.658	36.658	182.960
Agricultural Research	7.521	6.669	5.470	5.200	5.140	30.000
Anti-locust battle	3.577	22.010	17.137	17.138	17.138	77.000
Studies	9.210	4.400	4.350	3.350	3.400	24.710
Land conservancy	3.200	10.020	8.050	8.280	9.650	39.200
Various equipment	4.306	3.194	1.530	1.690	1.330	12.050
TOTAL	286.015	328.961	308.279	306.706	319.741	1.549.702

CHAPTER 2 - DAMS

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Studies and sundry	9.200	6.000	8.200	4.100	3.400	30.900
Work being completed	84.000	74.000	70.000	27.000		255.000
Mechra-Klila	6.500					6.500
Lower Moulouya	5.500					3.500
Ait Adel	28.000	34.000	30.000	12.000		104.000
Ziz	46.000	40.000	40.000	15.000		141.000
Utilisation of existing schemes (Lower Moulouya, Nakhla, El Kansera)	14.500	9.500				24.000
New dams	29.000	73.800	78.800	125.800	114.000	421.400
Loukkos	500	1.300	4.000	4.000		9.800
Arabat	2.000	18.000	31.000	34.000	40.000	125.000
Grou	17.000	20.000	14.000	33.000	32.000	116.000
Sidi Chého	1.000	3.000	10.000	20.000	20.000	54.000
Massa	4.800	3.000	7.000	22.000	22.000	58.800
Zaouia N'Ourbaz	3.700	28.500	12.800	12.800		57.800
Studies of new dams (T'Fer, Lakhdar, Dechra, El Oued, N'Fis)	4.200	4.600	2.600	2.000	1.100	14.500
TOTAL	140.900	167.900	159.600	158.900	118.500	745.800

CHAPTER 3 - NATIONAL DEVELOPMENT (1)

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Agriculture	38.300	28.300	7.840	7.500	7.500	89.440
Public Works	8.000	10.000	4.260	4.000	4.000	30.260
TOTAL	46.300	38.300	12.100	11.500	11.500	119.700

(1) Remuneration in kind (second part)

CHAPTER 4 - TOURISM

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
State Hotels	2.540	6.060	7.350	11.000	8.000	34.950
Equipment premium	7.000	8.000	10.000	15.000	17.540	57.540
Camping	960	1.440	1.440	2.400	3.360	9.600
Development of Z.A.P. (priority development regions)	4.000	6.000	8.000	10.000	12.000	40.000
Specific operations	2.000	2.000	1.000	1.000	1.000	7.000
Completion of Three Year Plan	10.000	12.000				22.000
TOTAL	26.500	35.500	27.790	39.400	41.900	171.090

CHAPTER 5 - POWER

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Electric power						
Output	21.927	23.750	50.400	32.400	11.150	139.627
Distribution	17.735	18.204	15.312	12.400	10.478	74.129
TOTAL	39.662	41.954	65.712	44.800	21.628	213.756

CHAPTER 6 - MINING

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Directorate of Mines	2.364	5.361	4.419	4.072	2.474	18.690
B.R.P.M.	29.120	56.490	49.042	78.680	68.444	281.776
General research	5.400	5.400	5.352	5.384	5.384	26.920
Petroleum research	11.090	13.280	15.550	12.800	11.600	64.320
Specific research	12.630	37.810	28.140	60.496	51.460	190.536
TOTAL	31.484	61.851	53.461	82.752	70.918	300.466

CHAPTER 7 - INDUSTRY

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Projects	45.000	70.000	95.000	10.000		220.000
The Tadla A.I.A.	30,000	30.000	40.000			100.000
Sugar Factory		10.000	20.000	10.000		40.000
C.O.T.E.F.	10.000	20.000	20.000			50.000
Doukkalas Sugar Factory	5.000	10.000	15.000			30.000
Equipment premium	25.000	14.000	10.000	11.000	10.000	70.000
Economic surveys	330					330
TOTAL	70.330	84.000	105.000	21.000	10.000	290.330

CHAPTER 8 - CRAFT - INDUSTRIES

	1968	1969	1970	1971	1972	TOTAL
All craft-industries	1.200	1.000	1.000	3.975	2.925	10.100
Research and National Development Centre		1.000	280			1.280
Craft-industries catalogue		500	1.000			1.500
Trade Fair	125	125	125	125	125	625
Aid for setting up co-operatives			200	200	600	1.000
Raw material buying and distribution centres					1.000	1.000
Setting up agencies	300	300	565			1.165
Setting up professional training centres			200	50		250
El Hajeb Centre	785	785				1.570
Renovation of existing centres	600	600	800	700	810	3.510
TOTAL	3.010	4.310	4.170	5.050	5.460	22.000

CHAPTER 10 - EDUCATION, PROFESSIONAL TRAINING AND TRAINING OF SENIOR GRADES

	1968	1969	1970	1971	1972	TOTAL
Public Education	55.947	54.000	49.577	39.640	39.836	239.000
Primary education	16.716	18.000	19.000	18.000	19.008	90.724
Secondary education	34.425	31.508	26.377	17.390	16.700	126.400
Higher education	2.986	1.992	2.100	2.250	2.308	11.636
Cultural activities	800	1.000	100		100	2.000
Training of senior grades	1.020	1.500	2.000	2.000	1.720	8.240
Special training	11.618	10.435	5.970	4.650	4.600	37.273
Work	1.380	2.050	1.950	1.750	1.850	8.980
Agriculture	5.280	4.250	1.920	800	750	13.000
Crafts	520	410				930
Information	100	150	200	200		650
Mines and industry	125	125	150	100		500
Maritime sector	700	-	-	-	-	700
I.N.S.E.A.	350	450	500	600	700	2.600
Home Office	800	2.000	750	700	700	4.950
National Defence	480					480
Hotel training	1.883	1.000	500	500	600	4.483
TOTAL	67.565	64.435	55.547	44.290	44.436	276.273

CHAPTER 11 - YOUTH AND SPORTS

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Youth	1.850	2.222	1.454	1.600	930	8.056
Popular education and feminine promotion	1.681	480	200	800	650	3.811
Sports	416	2.275	2.850	1.300	1.053	7.894
TOTAL	3.947	4.977	4.504	3.700	2.633	19.761

CHAPTER 12 - PUBLIC HEALTH AND FAMILY PLANNING

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Family Planning	775	1.210	1.307	1.248	1.560	6.100
Urban prevention network	700	1.000	2.100	2.290	3.988	10.078
Rural prevention network	400	2.500	3.776	4.317	5.507	16.500
University hospital centre	673	6.726	8.365	9.790	8.076	33.630
Hospital system	2.000	6.000	6.055	5.048	6.284	25.387
General hospitals	2.085					2.085
Rural Education	508					508
Rebuilding Agadir Hospital Centre	1.000					1.000
Fight against social diseases	4.965					4.965
Studies	50	150	100	100	100	500
TOTAL	13.156	17.586	21.703	22.793	25.515	100.753

CHAPTER 13 - TRANSPORT

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Ports	22.934	30.851	29.291	23.822	17.403	124.301
Casablanca	2.070	5.930	5.840	6.370	3.500	23.710
Tangiers	3.575	1.230	660		1.000	6.465
Safi	11.000	11.200	9.900	9.900	9.200	51.200
Agadir	2.551	6.601	5.751	3.101	1.251	19.255
Kenitra	1.820	2.450	4.950	2.911	912	13.043
Other ports	1.618	2.940	1.940	1.290	1.290	9.078
Lighthouses and beacons	300	500	250	250	250	1.550
Merchant marine	844	406				1.250
Sea-fishing	651		556			1.207
Fish co-operatives	466		466			932
Sales promotion campaign	90		90			180
Completion of Three Year Plan	95					95
Roads	34.864	29.360	31.700	32.450	34.390	162.764
Main and second class roads	11.500	12.300	11.900	11.750	13.100	60.550
Tourist routes	3.725	2.500	2.000	2.000		10.225
Third-class roads	5.850	6.560	8.500	9.200	9.890	40.000
Specific projects	13.500	8.000	9.300	9.500	11.400	51.700
Mining tracks	238					238
Heavy equipment and machinery	24					24
Studies and experiments	27					27

See following page for continuation

CHAPTER 13 - TRANSPORT (cont.)

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Railways	28.400	28.200	40.500	41.000	37.300	175.400
Adapting the system to needs of the economy	3.900	3.900	6.900	4.900	3.900	23.500
Renewal and renovation of equipment	19.500	14.300	18.600	16.100	13.400	81.900
Railway link to Ben Guerir	5.000	10.000	15.000	20.000	20.000	70.000
Civil aviation	46.900	21.000	11.800	5.250	4.050	89.000
Airports						
Rabat-Salé		3.100	2.500			5.600
Agadir	500					500
Marrakesh	500	2.900				3.400
Nouasseur	34.800	6.500	3.000			44.300
Other airports	1.000					1.000
Equipment						
Aeronautical	7.500	7.500	5.500	4.750	3.750	29.000
Meteorological	1.000	1.000	800	500	300	3.600
Completion of the Three Year Plan	1.600					1.600
TOTAL	134.593	109.817	113.847	102.522	93.143	553.922

CHAPTER 14 - TELECOMMUNICATIONS

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Post, Telephones, Telegraph	25.746	35.825	41.557	17.225	14.825	135.178
Switchgear	1.608	4.525	8.035	7.325	5.925	27.418
Transmission	1.428	11.450	15.450	4.450	3.450	36.228
Records	882	1.500	1.500	2.000	2.000	7.882
Land posts	2.500	1.400	1.000	2.500	2.500	9.900
Post buildings	800	800	800	800	800	4.000
Vehicle Fleet	150	150	150	150	150	750
Three Year Plan payments due	18.378	16.000	14.622			49.000
R.T.M.	2.750	6.000	7.900	7.885	9.340	33.875
Radio	250	1.300	3.350	4.550	5.530	14.980
Television	2.500	4.700	4.550	3.335	3.810	18.895
Moroccan Cinema Centre	950					950
TOTAL	29.446	41.825	49.457	25.110	24.165	170.003

CHAPTER 15 - URBAN AND RURAL EQUIPMENT

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Housing and Urban development	21.975	15.100	21.235	26.815	19.935	105.060
Rural housing	1.725	5.300	8.685	9.255	5.035	30.000
Urban housing	11.750	5.800	8.550	13.560	11.400	51.060
Development Plan	1.000	1.500	1.500	1.500	1.000	6.500
Tangiers industrial zone	5.000					5.000
Electrification of rural centres	2.500	2.500	2.500	2.500	2.500	12.500
Earthquake prevention	50	150	100	100	50	450
Water supplies	25.449	27.187	6.207	3.440	2.880	65.163
Studies and research	3.136	487	1.043	360		5.026
Underground water	13.760	12.940	164	230	130	27.224
Surface water	3.000	3.500	3.500	2.850	2.750	15.600
Completion of Three Year Plan	5.553	10.260	1.500			17.313
Rebuilding of Agadir	5.950	2.450	1.450	700	350	10.900
General studies	300	300	300	100	50	1.050
Demolition	50	50	50			150
Roads	200	200	200	200		800
Improvement	200	300	300	300	300	1.400
Parks	100	200	100	100		500
Reconstruction of the sewerage system	500	-	-	-	-	500
Household waste processing factory	450	450	-	-	-	900
Replacement of 3 by-product processing factories	-	-	500	-	-	500
Completion of Three Year Plan	4,150	950				5.100
TOTAL	63.424	44.887	28.992	31.055	23.215	181.573

CHAPTER 16 - ADMINISTRATIVE FACILITIES

(1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
- Royal Court and connected services	25.000	20.000				45.000
- Department of Justice	2.070	3.214	1.904	1.062	1.162	9.412
- Foreign Affairs	1.778	2.000	-	-	-	3.778
- Home Office (including F.A. and Police)	15.235	27.740	22.839	18.079	16.207	100.100
- Labour and social matters	102	242	258	314	314	1.230
- Public Health		200	100	150	250	700
- Youth and Sports			100	200	250	550
- Public Education	50	200	250	250	250	1.000
- Habous and Islamic matters	2.309	2.000	1.000	1.000	-	6.309
- General Government Secretariat	120	30	-	-	-	150
- Exchequer	2.847	1.000	1.000	110	-	4.957
- Planning and training of senior grades	300	400	300	-	-	1.000
- Public Works	441	150		-	-	591
- Commerce, industry, mines, craft-industries, merchant marine and fishing	164	-	-	-	-	164
- Population census	-	1.000	9.550	2.650	1.800	15.000
- National Defence	5.760	-	-	-	-	5.760
TOTAL	56.176	58.176	37.301	23.815	20.233	195.701

THREE YEAR PLAN PAYMENTS

(1,000 DH)

	1968 (exclusively)
Operation "schools" 1967	20.000
Purchase of equipment for National Defence	20.150
Additional plant for the Beni Mellal and Ksar-El Kebir tanneries	416
Liquidation of the former O.N.I. and O.N.M.R.	14.000
Liquidation of the O.C.P. fund	60.000
Various studies	1.100
Increase in the capital of SUNAL	16.250
Manufacture by Morocco of arms and amunition	7.100
TOTAL	139.016
As a reminder	
Settlement of payments due in relation to:	
- purchase of locomotives and passenger railway carriages by the O.N.C.F.	23.900
(entered under "Transport")	
TOTAL	162.916

SUMMARY OF PUBLIC INVESTMENTS INCORPORATED UNDER THE 1968-1972 PLAN

(1,000 DH.

Chapter	1968	1969	1970	1971	1972	TOTAL
1 - Agriculture	286.015	328.961	308.279	306.706	319.741	1.549.702
2 - Dams	140.900	167.900	159.600	158.900	118.500	745.800
3 - National Development	46.300	38.300	12.100	11.500	11.500	119.700
4 - Tourism	26.500	35.500	27.790	39.400	41.900	171.090
5 - Power	39.662	41.954	65.712	44.800	21.628	213.756
6 - Mines	31.484	61.851	53.461	82.752	70.918	300.466
7 - Industry	70.330	84.000	105.000	21.000	10.000	290.330
8 - Craft-industries	3.010	4.310	4.170	5.050	5.460	22.000
9 - Education, training of senior grades	67.565	64.435	55.547	44.290	44.436	276.273
10- Youth and sports	3.947	4.977	4.504	3.700	2.633	19.761
11- Public Health and family planning	13.156	17.586	21.703	22.793	25.515	100.753
12- Transport	134.593	109.817	113.847	102.522	93.143	553.922
13- Telecommunications	29.446	41.825	49.457	25.110	24.165	170.003
14- Urban and rural equipment	53.424	44.887	28.992	31.055	23.215	181.573
15- Administrative facilities	56.176	58.176	37.301	23.815	20.233	195.701
TOTAL operations of the Five Year Plan	1.002.508	1.104.479	1.047.463	923.393	832.987	4.910.830
Three Year Plan payments	139.016					139.016
GRAND TOTAL	1.141.524	1.104.479	1.047.463	923.393	832.987	5.049.846

CHAPTER 1 - AGRICULTURE

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local Communities	Public Credits (1)	Total		
Irrigated areas	671.137			671.137		671.137
Lower Moulouya	116.505			116.505		116.505
Rharb	71.360			71.360		71.360
Sebou	43.340			43.340		43.340
Tadla	116.162			116.162		116.162
Doukkala	44.440			44.440		44.440
Haouz	115.044			115.044		115.044
Tafilalet	58.046			58.046		58.046
Ouarzazate	39.370			39.370		39.370
Loukkos	30.000			30.000		30.000
Souss-Massa	36.870			36.870		36.870
Bog areas	571.925	55.031	130.000	756.956		756.956
Development	325.295	55.031	130.000	510.326		510.326
Other interventions (original stock seeds)	29.020			29.020		29.020
Waterways and Forests	157.500			157.500		157.500
DERRO	60.110			60.110		60.110
Stockbreeding	123.680		30.000	153.680		153.680
Production Support Operations	182.960			182.960		182.960
Agricultural research	30.000			30.000		30.000
Anti-locust battle	77.000			77.000		77.000
Studies	24.710			24.710		24.710
Land conservancy	39.200			39.200		39.200
Various equipment	12.050			12.050		12.050
TOTAL	1.549.702	55.031	160.000	1,764.733		1.764.733

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(1) Medium-term credits granted to farmers. Not included in this total are 80 million Dirhams allocated by the D.M.V. for the irrigated areas which, normally, are not recovered and which have therefore been entered under the State equipment budget.

CHAPTER 2 - DAMS

(1,000 DH)

	Public capital				Private Capital	Grand Total
	State Equipment Budget	Local Commun-ities	Public Credits (1)	Total		
Studies and Sundry	30.900			30.900		30.900
Work being completed	255.000			255.000		255.000
Mechra-Klila	6.500			6.500		6.500
Lower Moulouya	3.500			3.500		3.500
Ait Adel	104.000			104.000		104.000
Ziz	141.000			141.000		141.000
Utilisation of existing schemes	24.000			24.000		24.000
(Lower Moulouya Nakhala, El Kandera)						
New dams	421.400			421.400		421.400
Loukkos	9.800			9.800		9.800
Arabat	125.000			125.000		125.000
Grou	116.000			116.000		116.000
Sidi Chého	54.000			54.000		54.000
Massa	58.800			58.800		58.800
Zaouia N'Ourbaz	57.800			57.800		57.800
Studies of new dams	14.500			14.500		14.500
(T'Fer, Lakhdar Dechra el Oued N'Fis)						
TOTAL	745.800			745.800		745.800

CHAPTER 3 - NATIONAL DEVELOPMENT (1)

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local Commun-itites	Public Credits	Total		
TOTAL	119.700	30.000		149.700		149.700

(1) Remuneration in kind (second part)

CHAPTER 4 - TOURISM

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local Commun-ities & State under-takings	Public Credits	Total		
Accommodation: including equipment premium	92.490	46.836	380.658	519.984	151.047	671.031
Camping	9.600	10.400		20.000		20.000
Development of the Z.A.P.	40.000			40.000		40.000
Specific operations	7.000			7.000		7.000
Completion of the Three Year Plan	22.000			22.000		22.000
TOTAL	171.090	57.236	380.658	608.984	151.047	760.031

CHAPTER 5 - POWER

(1,000 DH)

	Public capital				Private Capital	Grand Total
	State Equipment Budget	State under-takings	Public Credits	Total		
Electric Power	213.756	213.756		427.512		427.512
Output	139.627	139.627		279.254		279.254
Distribution	74.129	74.129		148.258		148.258
Petroleum products and coal					82.000	82.000
Fuel					2.000	2.000
Bitumen					14.000	14.000
Lubricants					36.000	36.000
Propane					3.000	3.000
Increased capacity of refineries					13.000	13.000
Increased storage capacity					7.000	7.000
Coal					7.000	7.000
TOTAL	213.756	213.756		427.512	82.000	509.512

CHAPTER 6 - MINING

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	State under-takings	Public Credits	Total		
Directorate of Mines	18.690			18.690		18.690
Research (B.R.P.M. private)	91.240			91.240	84.165	175.405
General research	26.920			26.920	9.685	36.605
Petroleum research	64.320			64.320	74.480	138.800
Specific Projects (B.R.P.M. private)	190.536			190.536	63.845	254.381
O.C.P.		722.552		722.552		722.552
Private mines					91.510	91.510
TOTAL	300.466	722.552		1,023,018	239.520	1,262.538

CHAPTER 7 - INDUSTRY

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	State under-tadings	Public Credits	Total		
State Projects						
Tadla A.I.A.	100.000			100.000		100.000
sugar factory	40.000			40.000		40.000
Semi-State projects						
COTEF	50.000			50.000	50.000	100.000
Doukkala sugar factory	30.000			30.000	30.000	60.000
Mechra Ben Abou Chemical plant		385.000		385.000		385.000
Private projects						
Maroc Faiences					13.000	13.000
Plastics					28.000	28.000
Cellulose					102.000	102.000
Alfa processing					185.000	185.000
Paper and board					45.000	45.000
Cement factory					32.000	32.000
Tetouan textiles					30.000	30.000
Moulouya sugar factory and refinery					125.000	125.000
Fruit Juice					16.000	16.000
Small-scale projects					90.000	90.000
Equipment premiums	70.000			70.000		70.000
Economic surveys	330			330		330
TOTAL	290.330	385.000		675.330	746.000	1,421.330

CHAPTER 8 - CRAFT-INDUSTRIES

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	State under-takings	Public Credits	Total		
All craft-industries	10.100			10.100		10.100
Research and National Development Centre	1.280			1.280		1.280
Craft-industries catalogue	1.500			1.500		1.500
Trade Fair	625			625		625
Aid for setting up co-operative	1.000			1.000		1.000
Raw materials buying and distribution centres	1.000			1.000		1.000
Setting up agencies	1.165			1.165		1.165
Setting up of professional training centres	250			250		250
El Hajeb centre	1.570			1.570		1.570
Renovation of existing centres	3.510			3.510		3.510
TOTAL	22.000			22.000		22.000

CHAPTER 9 - TRADE AND SERVICES

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	State under-takings	Public Credits	Total		
Trade and services					90.000	90.000

CHAPTER 10 - EDUCATION
PROFESSIONAL TRAINING
TRAINING OF SENIOR GRADES

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local communities	Public Credits	Total		
Public education	239.000			239.000		239.000
Primary education	90.724			90.724		90.724
Secondary education	126.400			126.400		126.400
Higher education	11.636			11.636		11.636
Training of senior grades	8.240			8.240		8.240
Cultural activities	2.000			2.000		2.000
Special training	37.273			37.273		37.273
Work	8.980			8.980		8.980
Agriculture	13.000			13.000		13.000
Crafts	930			930		930
Information	650			650		650
Mines and industry	500			500		500
Maritime sector	700			700		700
I.F.S.E.A.	2.600			2.600		2.600
Home Office	4.950			4.950		4.950
National Defence	480			480		480
Hotel training	4.483			4.483		4.483
TOTAL	276.273			276.273		276.273

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	Public Credit		
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CHAPTER 11 - YOUTH AND SPORT

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local communities	Public Credits	Total		
Youth	8.056			8.056		8.056
Popular education and Feminine Promotion	3.811			3.811		3.811
Sports	7.894			7.894		7.894
Local facilities		5.000		5.000		5.000
TOTAL	19.761	5.000		24.761		24.761

CHAPTER 12 - PUBLIC HEALTH AND FAMILY PLANNING

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local communities	Public Credits	Total		
Family planning	6.100			6.100		6.100
Urban prevention network	10.078			10.078		10.078
Rural prevention network	16.500			16.500		16.500
University hospital centre	33.630			33.630		33.630
Hospital and study centre	25.387			25.387		25.387
General Hospitals	2.085			2.085		2.085
Rural training	508			508		508
Rebuilding Agadir hospital centres	1.000			1.000		1.000
Fight against social diseases	4.965			4.965		4.965
Studies	500			500		500
TOTAL	100.753			100.753		100.753

CHAPTER 13 - TRANSPORT

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	State under-takings & local commun-ities	Public Credits	Total		
Ports	124.301	26.765		151.066		151.066
Casablanca	23.710	12.800		36.510		36.510
Mohammedia	-	12.960		12.960		12.960
Tangiers	6.465	1.005		7.470		7.470
Safi	51.200			51.200		51.200
Agadir	19.255			19.255		19.255
Kenitra	13.043			13.043		13.043
Other ports	9.078			9.078		9.078
Lighthouses and beacons	1.550			1.550		1.550
Merchant Marine	1.250			1.250		1.250
Sea Fishing	1.207			1.207	6.000	7.207
Roads	162.764	10.000		172.764	66.000	238.764
Main and second class roads	60.550			60.550		60.550
Tourist routes	10.225			10.225		10.225
Third class roads	40.000	10.000		50.000		50.000
Specific projects	51.700			51.700		51.700
Mining tracks	238			238		238
Sundry	51			51		51
Road transport					66.000	66.000
Railways	175.400			175.400		175.400
Adapting the network to needs of the economy	23.500			23.500		23.500
Renewal and renovation of equipment	81.900			81.900		81.900
Rail link to Benguerir	70.000			70.000		70.000
Civil aviation	89.000	30.000		119.000		119.000
Airports	54.800			54.800		54.800
Equipment and installations		30.000		30.000		30.000
Aeronautical equipment	29.000			29.000		29.000
Meteorological equipment	3.600			3.600		3.600
Completion of Three Year Plan	1.600			1.600		1.600
TOTAL	553.922	66.765		620.687	72.000	692.687

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CHAPTER 14 - TELECOMMUNICATIONS

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	State under-takings	Public Credits	Total		
Post, telephones and telegraph	135.178			135.178	21.500	156.678
Switchgear	27.418			27.418		27.418
Transmission	36.228			36.228		36.228
Records	7.882			7.882		7.882
Land posts	9.900			9.900	21.500	31.400
Post buildings	4.000			4.000		4.000
Vehicle Fleet	750			750		750
Payments due under Three Year Plan	49.000			49.000		49.000
R.T.M.	33.875			33.875		33.875
Radio	14.980			14.980		14.980
Television	18.895			18.895		18.895
Moroccan Cinema Centre	950			950		950
TOTAL	170.003			170.003	21.500	191.503

CHAPTER 15 - URBAN AND RURAL DEVELOPMENT

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local communities & State undertakings	Public Credits	Total		
Housing and urban development	**105.060**	**70.000**	**500.000**	**675.060**	**500.000**	**1.175.060**
Rural housing	30.000	70.000		100.000		100.000
Urban housing	51.060			51.060		51.060
Private housing			500.000	500.000	500.000	1.000.000
Development plans	6.500			6.500		6.500
Tangiers Industrial Zone	5.000			5.000		5.000
Electrification of rural centres	12.500			12.500		12.500
Earthquake prevention	**450**			**450**		**450**
Water supplies	**65.163**	**28.288**		**93.451**		**93.451**
Studies and research	5.026			5.026		5.026
Underground water	27.224			27.224		27.224
Surface water	15.600			15.600		15.600
Construction of reservoirs		13.318		13.318		13.318
Branches and extensions		14.970		14.970		14.970
Completion of Three Year Plan	17.313			17.313		17.313
Rebuilding Agadir	**10.900**			**10.900**		**10.900**
General studies	1.050			1.050		1.050
Demolition	150			150		150
Roads	800			800		800
Improvements	1.400			1.400		1.400
Parks	500			500		500
Reconstruction of the sewerage system	500			500		500
Household waste processing factory	900			900		900
Replacement of 3 factories	500			500		500
Completion of Three Year Plan	5.100			5.100		5.100
TOTAL	181.573	98.288	500.000	779.861	500.000	1.279.861

CHAPTER 16 - ADMINISTRATIVE FACILITIES

(1,000 DH)

	Public Capital				Private Capital	Grand Total
	State Equipment Budget	Local Communities	Public Credits	Total		
Royal Court and connected services	45.000			45.000		45.000
Department of Justice	9.412			9.412		9.412
Foreign Affairs	3.778			3.778		3.778
Home Office (including FA and Police)	100.100			100.100		100.100
Labour and social matters	1.230			1.230		1.230
Public Health	700			700		700
Youth and Sports	550			550		550
Public education	1.000			1.000		1.000
Habous and Islamic matters	6.309			6.309		6.309
General Government Secretariat	150			150		150
Exchequer	4.957			4.957		4.957
Planning of training of senior grades	1.000			1.000		1.000
Public Works	591			591		591
Commerce, Industry,Mines, Crafts, Merchant marine and sea fishing	164			164		164
Sundry		2.000		2.000		2.000
Population census	15.000			15.000		15.000
National Defence	5.760			5.760		5.760
TOTAL	195.701	2.000		197.701		197.701

SUMMARY OF INVESTMENTS
UNDER THE PLAN 1968-1972

(1,000 DH)

CHAPTERS	Public Capital				Private Capital	Grand Total
	State Equipment Budget	State under-takings, local communities & operating budget	Public Credits	Total		
1 - Agriculture	1.549.702	55.031	160.000	1.764.733		1.764.733
2 - Dams	745.800			745.800		745.800
3 - National Development	119.700	30.000		149.700		149.700
4 - Tourism	171.090	57.236	380.658	608.984	151.047	760.031
5 - Power	213.756	213.756		427.512	82.000	509.512
7 - Industry	300.466	722.552		1.023.018	239.520	1.262.538
8 - Craft-industries	290.330	385.000		675.330	746.000	1.421.330
	22.000			22.000		22.000
9 - Commerce and services					90.000	90.000
10- Education, training of senior grades	276.273			276.273		276.273
11- Youth and Sports	19.761	5.000		24.761		24.761
12- Public Health and Family Planning	100.753			100.753		100.753
13- Transport	553.922	66.765		620.687	72.000	692.687
14- Telecommunications	170.003			170.003	21.500	191.503
15- Urban and rural development	181.573	98.288	500.000	779.861	500.000	1.279.861
16- Administrative facilities	195.701	2.000		197.701		197.701
Total Five Year Plan operations	4.910.830	1.635.628	1.040.658	7.587.116	1.902.067	9.489.183
Renewal and major maintenance of equipment and materials		522.000		522.000	1.300.000	1.822.000
Three Year Plan payments	139.016			139.016		139.016
GRAND TOTAL	5.049.846	2.157.628	1.040.658	8.248.132	3.202.067	11.450.199

KING DOM OF MORROCCO

PRIME MINISTER
MINISTRY OF ECONOMIC AFFAIRES PLANNING

AND THE TRAINING OF SENIOR GRADES

Planning and Statistical Division

Maroc. Ministère des affaires économiques,
plan et la formation des cadres.

FIVE-YEAR PLAN

1968-1972

VOLUME II

DEVELOPPEMENT BY SECTOR

CHAPITER I

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EVALUATION OF THE THREE YEAR PLAN

The development of agricultural output was one of the priority objectives of the Three Year Plan.

But inspite of the extensive equipment credits allocated to agriculture (around 1,000 million DH) and the effort made by the Government to set up effective structures and to accelerate the development of the less privileged regions, the growth rate of agricultural output has remained lower than that of the population.

The effect of the schemes undertaken during the Three Year period on the growth of the agricultural sector cannot yet be assessed as the statistics available are not sufficiently detailed and are heavily influenced by the hazards of the climate. The assessments made over a longer period, however, (15 years) have shown that the rate of growth of the gross agricultural incremental value has been no more than an average of 1.5% per annum.

An investigation should therefore be made into the reasons why the efforts made in the past have been less successful than had been expected:

- the attempt to set up efficient administrative structures by means of different and successive reforms of the organisation of the Ministry of Agriculture and of the Offices responsible for Land Utilisation caused delays in the implementation of the equipment programmes and difficulties over the appropriate powers of the various authorities which, in turn, created obstacles to the co-ordination of schemes.

- these delays were also responsible for the lack of senior grades, in both quality and quantity, to undertake new responsibilities or to deputise temporarily as technical advisors (installations in the irrigation areas, development of bog areas, stockbreeding pasturage scheme).

- the desire to devote efforts in favour of the less privileged regions of the Kingdom led the Government in certain cases to delay the implementation of profitable installations in regions enjoying a milder climate (Loukkos) in favour of other less profitable developments which would, however, improve the standard of living in the poorer provinces (dams at Ziz and Zaouia N'Ourbaz).

- finally, the characteristics of the traditional rural sector, particularly the land tenure structures, have frequently been an obstacle to the rational development of land and to full use being made of the available water engineering systems. Delays are certainly inevitable in preparing a changeover from scattered and low-yield farming (large holdings) or crop-growing (small holdings) based on a self-supporting and self-consumer system into more intensive, more specialised farming based on trade; There are certain measures, however, which should reduce these delays. In this respect the Three Year Plan was perhaps not sufficiently precise in its planning of the reforms needed of an institutional and legal nature. Certain measures which it planned therefore (setting up a Joint Agrarian Reform Fund, development-obligations, transformation of the C.N.C.A. into a State Company) were only partially applied whereas others were adopted which had not been planned.

These reasons, together with the unwieldiness of the administrative and financial control procedures and also the late start to the Three Year Plan, explain only the partial implementation of this Plan and the limited effect of the expenditure accomplished on the level of agricultural production.

The implementation of the programmes listed in the Plan will be reviewed in detail:

- for the Directorates of the Ministry of Agriculture and Agrarian Reform, then,

- for the Development Offices.

1 - Directorate of the Ministry of Agriculture and Agrarian Reform

1.1 - Directorate of Studies, Economic and Legal Matters

This Directorate was set up at the start of the Three Year Plan.

Assuming in the main the prerogatives of the Directorate of Agricultural Economy, the D.E.A.E.J., (Directorate of Studies, Economic and Legal Matters), through its Economic Affairs Division, was able to maintain its rôle of co-ordination and control and continued its work in the field of production and distribution of original stock seeds, in close collaboration with the Directorate of Agricultural Research, the Agricultural Fund and the Co-operative Organisations. The credits allocated to this Directorate in this field were 95% utilised.

Similarly, having assumed the powers of the former service of Rural Construction, this Directorate was able to take charge of and utilise to the full the credits scheduled for the financial holdings of the Ministry of Agriculture in the investments and schemes for the storage and processing of agricultural products.

In the field of research, through lack of personnel, this Directorate was unable to carryout the work planned and utilise the credits allocated (it only used some 50% of the credits allocated for socio-economic studies). Nevertheless, without having to call on credits other than those from the operating budget, the Study and Co-ordination Division was able to participate in the general or regional investigations and to undertake certain studies by sector.

1.2 - Directorate of Veterinary and Stockbreeding Services

The Three Year Plan laid emphasis on the question of stockbreeding and insisted on the need to improve feeding and the health, material and genetic conditions of cattle.

The first task of the Directorate of Veterinary Services was to improve the health condition of cattle, but shared the other tasks with the Development Offices (O.N.I. and O.N.M.R. then the O.M.V.A. which have now become the D.M.V. and O.M.V.A). Co-ordination among these various services, however, is inadequate.

The credits allocated under the Three Year Plan to the D.S.V.E. (Directorate of Veterinary and Stockbreeding Services) amounted to approximately 10 million dirhams including carry-overs from the year 1964. At the end of the Plan payments devoted mainly to expanding the existing health units and to the building of fodder centres will amount to approximately 58% of the total credits allocated.

A worthwhile effort has also been noted in the field of generalising the adoption of new methods and stockbreeding competitions: the credits allocated for these purposes have almost entirely been used up.

1.3 - Directorate of Agricultural Research

Under the Three Year Plan the status of "Agricultural Research changed: it developed from a research institute, relatively independent financially, into a Directorate of the Ministry of Agriculture. This change led to considerable delays in building new stations or expanding existing ones and also to the purchase of scientific and technical equipment; The new D.R.A., however, (Directorate of Agricultural Research) has continued its research and experiments on many cultivations (cereals, vegetables, market-garden plants and sugar beet, citrus fruits and others) and also began other specialised investigations (costing cultivations, calculating work times, valorisation of peasant working days, attempt to find an economic balance for family holdings).

This basic work was hindered by the departure of investigators including a number of heads of department.

The Directorate of Agricultural Research spent a total of 55% of the 19.6 million DH allocated to it under the Three Year Plan.

1.4 - Directorate of Agricultural Instruction

Coming initially under the I.N.R.A. Agricultural Instruction was subsequently made the responsibility of a Directorate set up for that purpose within the Ministry of Agriculture.

Under the Three Year Plan this Directorate has trained:

- 70 Government engineers
- 87 site engineers
- 808 technical assistants

The general problems with which this Directorate is faced are twofold:

- the dual nature of the agricultural instruction dispensed by two Ministries (Public Education and Agriculture);

- the need to raise the standard of agricultural studies and particularly to adapt instruction to the tasks which future senior grades will have to undertake.

Solutions were not found under the Three Year Period to either of these two problems.

This Directorate spent 18% of the credits allocated to it.

1.5 - Land Conservancy and Topographical Service Directorate

The Land Conservancy Directorate is undertaking tasks to which it has become well accustomed over a number of years; furthermore, faster procedures than the traditional methods used up to now have been introduced to carry out certain operations (system of group registration). In the main the objectives of the Plan in the field of land surveys and work were achieved and even exceeded in certain sectors. Out of the 20 million DH credits allocated (excluding the 8 million DH for the Major Survey which has been postponed), land conservancy accounted for 15 million DH, or 72% of the total.

a) triangulation and levelling work:

The triangulation and surveying of the whole of South West Morocco have been carried out, together with the detailed triangulation of the Ziz valley. At present therefore the whole of Morocco is covered by a first and second grade survey network.

b) drawing up and revising the map of Morocco.

The estimates concerning the map of Morocco were followed precisely and even exceeded.

c) Investigations and work in the outer-lying areas

i - topographical surveys:

Out of the 150,000 hectares scheduled under the Plan, more than 105,000 have been surveyed;

ii - regrouping:

During the period covered by the Plan approximately 75,000 hectares were regrouped as a result of the Survey made by the former O.N.I. (National Irrigation Office).

iii - group registration:

This involved approximately 12,000 hectares.

1.6 - Directorate of Waterways and Forests and Soil Conservancy

The Directorate of Waterways and Forests disposed of extensiv credits amounting to 96.5 million DH (including carry-overs from 1964) but these were still inadequate to meet the extent of the problems caused by erosion; approximately 83% of the credits allocated were utilised.

a) Soil Protection and Reinstatement (S.P.R.)

The work carried out under the Plan involved 43,800 hectares.

b) Reafforestation:

Some 60,000 hectares were covered by reafforestation schemes, including 2,000 hectares coming under the DERRO project.

c) Forest paths and housing

A new forest post has been created for each new site. The utilisation of the credits concerning these headings, therefore, depends directly on the previous headings. At the end of 1967 105 million DH had been spent on forest paths and 3.4 million DH for forestry housing and administrative buildings against 11.4 and 4.8 million DH credits respectively allocated.

TABLE 1 - Summary of investments made during the Three Year Plan 1965-1967

(in millions of DH)

Directorates	Credits opened -	Allocated at 31.12.67	% of achievemen
- Purchase of land	0.5	0.2	40
- Directorate of Studies, Economic and Legal Matters	12.7	11.6	91
- Directorate of Stockbreeding	10.4	6.0	58
- Directorate of Agricultural Research	19.6	10.7	55
- Directorate of Agricultural Instruction	5.8	1.0	18
- Directorate of Land Conservancy Topographical Service and Survey	20.9(1	15.0	72
- Directorate of Waterways and Forests and Soil Conservancy	96.5	80.6	83
Sub-total 1	166.4	125.1	76

(1) excluding 8 millions for the Major Survey which were not released.

2 - Agricultural Development Offices

Under the Three Year Plan various changes were made in the organisation of the services responsible for the agricultural development of the national territory.

First the O.N.I. and the O.N.M.R. were merged to form the O.M.V.A. which in turn was rapidly split up into seven Regional Development Offices (Moulouya, Doukkalas, Draa, Haouz, Rharb, Tadla, Tafilalet) under the authority of the Development Directorate set up within the Ministry of Agriculture.

These successive changes in the administrative apparatus responsible for promoting development nevertheless caused some delays in the implementation of regional programmes as will be seen first from the report on the irrigated areas and secondly from the report on the "dry-farming" areas.

2.1. - Irrigated areas

a) Moulouya:

The Three Year Plan provided for the continuation of the main works and the development of 8,200 hectares. The credits allocated for this operation amounted to 107 million DH.

The construction and equipment work on the Mechra Klila dam and the gallery tunnel at Bou Areg were completed. The credits allocated (57 million DH) were well exceeded (75 million DH) due to the carrying out of unexpected work for the renovation of large sections of the Bou Areg gallery, heavily affected by serious land falls along this work.

The erection of systems, internal installations, the setting up of development centres (C.M.V.) and the building of sheds all delayed the main work mainly because of the difficulties inherent in the region's land tenure structures and because of the two sets of legislation concerning land conservancy.

The internal installation of areas where irrigation is possible did not therefore always follow the external installations carried out.

To sum up therefore the State has spent some 300 million DH in investments in the water-engineering development of the Lower Moulouya since 1947. Some 400 million DH however are still to be invested in order to extend irrigation of the 10,000 odd hectares under cultivation at present to the whole of the region (70,000 hectares).

b) Gharb:

A general development survey of the Sebou Basin was carried out by an F.A.O. Mission. The cost for which Morocco will be responsible, however, amounts to some 14 million DH.

Furthermore the Plan provided for the continuation of the installation programmes started on the basis of 8,700 hectares of external equipment and 9,200 hectares of internal equipment in the irrigated area and 28,000 hectares under dry-farming.

The work on raising the water level of the El Kansera reservoir by 6 metres which was scheduled under the Plan is being undertaken together with redredging the main channel (45 kilometres) branching from the Oued Beth.

The majority of the work on the channel systems and internal equipment has been started.

The State has invested a total of some 90 million DH in this region since 1930.

At present 31,000 hectares are regulated and the area equipped amounts to 28,700 hectares, the area under gravity irrigation amounting to 17,500 hectares. A further 4,500 hectares are under pump irrigation.

c) Abda-Doukkala:

The development plan for this region has not yet been finalised; this can only be done when a decision has been adopted first concerning the distribution of the Oum Er R'bia waters among the three regions of Tadla, Haouz, and Doukkala and secondly concerning electricity and the agricultural consumption.

The only major operation launched was the scheme for completing the development of the Casier de Sidi Smain irrigation system and only 10% of the 79 million DH allocated under the Plan for this region has been spent.

Development of this region, in fact, is also being hindered by the difficulties deriving from holdings being split up.

d) Haouz:

Plans to provide an irrigation system and internal equipment for 1,500 hectares and to develop 13,000 hectares for dry-farming had been made. The total investment planned amounted to approximately 75 million DH.

The small-scale water engineering works were carried out almost entirely as planned; development, however, of the Tessaout-Ait Aadel dam was decided upon in 1966 and construction work has just started.

e) Tadla:

The Three Year Plan provided for continued work on building 35 kilometres of canals, mainly concerned with the main Canal G. (3rd and 4th section) and the main West Canal (2nd and 3rd section). Out of 14,000 hectares of external equipment and 13,000 of internal equipment, 7,000 and 8,000 hectares respectively have been completed. The total investment planned was 91 million DH.

f) Other schemes in the irrigated area

Among the studies planned particular mention should be made of the survey of the principal underground water levels undertaken by the Water Resources Department which is continuing its work under the Ministry of Public Works.

Furthermore, although not scheduled under the Three Year Plan, certain schemes such as strengthening the Nakhla Dam were begun by means of the agricultural water engineering credits, whilst others such as the Ziz Dam were allocated special credits.

2.2. - Dry-farming and Stockbreeding

Out of credits of 147 million DH allocated under this heading during the Plan, 45 million have been spent.

a) Redistribution:

6,000 hectares have been distributed to 700 families, the delay in relation to the planned schedule being due to the time needed to define the redistribution policy, the procedure for allocating plots and the inadequate resources of the various departments concerned.

b) Stockbreeding Pastures:

The Three Year Plan was ambitious in this sector but only reflected the gravity of the situation. The intention was to create a considerable number of "pasture improvement areas" involving a quarter of the total area of grazing-lands. Certain schemes were launched and completed (health installations, utilising water points, building fodder centres, etc..)

The "fodder" operation financed under this heading has had a relative but nonetheless encouraging success.

c) Community facilities:

These improvements were in the interests of the local communities: drinking water supplies, improvement of souks, rural centre development projects, electrification, etc.

The parties responsible for maintenance of these facilities should be appointed.

d) Planning nurseries

Credits allocated amounting to 3.8 million DH were 40% utilised.

e) Agricultural machinery:

Machinery in service is poorly maintained, the majority of utilisers having inadequate mechanical training. The administrative formalities to be fulfilled to have repairs made are also too complex.

Delays have occurred in ordering purchases of new equipment.

f) Advisory scheme:

The credits provided for under the Three Year Plan proved to be insufficient in view of the extent and diversity of the advisory schemes envisaged. Supplementary credits have therefore been allocated.

In addition to the credits planned therefore (4 million DH for the Three Year period) the O.M.V.A. has been given an additional grant of 6 million.

2.3. - Integrated projects

a) Derro

The credits under the Ministry of Agriculture budget were released to the O.M.V.A. in successive amounts for carrying out specific projects. In order to use these credits the O.M.V.A. had to expand its services responsible for carrying out these schemes.

Credits amounted to 33.57 million DH. At the end of the Plan 29 millions had been spent, or 87% of the total.

b) Loukkos:

Out of 22 million DH initially provided for this project, 4 million DH were allocated to the preliminary study of the main work, the remainder being allocated to other higher priority projects.

c) Tafilalet:

The surveys provided for under the Three Year Plan were carried out. A regional office at ZIZ-TAFILALET was set up after the Government's decision to build the ZIZ Dam.

d) Draa:

A regional office at OUARZAZATE was set up after the Government's decision to build a dam at Zaouia N'Ourbaz.

These two Offices are financed out of the Regional Development Fund set up at the end of 1965.

e) Sebou:

The Study Mission has almost completed its work and has submitted a detailed report of the operations to be undertaken to develop the Gharb plain.

TABLE 2 - Table showing the work carried out by the O.M.V.A.

(in millions of DH)

Description	Credits opened	Allocated at 31.12.67	% of achievement
- Purchase of land	3.2	2.0	63
- Water engineering works	469.4	244.7	52
- Dry-farming and stockbreeding	147.2	45.2	31
- Integrated projects (1)	45.6	29.8	65
- "National Development" repayments	41.5	24.0	58
Sub-total 2	706.9	345.7	49
- Liquidation of the former research and development organisations	114.7	113.7	99
Sub-total 3	114.7	113.7	99
TOTAL	821.6	459.4	56.0

(1) Excluding the credits from the Regional Development Fund for the Offices at Ziz and Ouarzazate and including DERRO.

GENERAL SUMMARY

(Implementation of the 1965-67 Plan)

(millions of DM)

	Credits opened, including carry-overs	Allocated	% of achievement
Purchase of land	3.7	2.2	59
Directorate of Studies, Economic and Legal Matters	12.7	11.6	91
Directorate of Veterinary and Stockbreeding Services	10.4	6.0	58
Directorate of Agricultural Research	19.6	10.7	55
Directorate of Agricultural Instruction	5.8	1.0	18
Directorate of Land Conservancy and Topographical Service	20.9	15.0	72
Directorate of Waterways and Forests and Soil Conservancy	96.5	80.6	83
Liquidation of former Research and Development Organisations	114.7	113.7	99
Agricultural Development Office			
Water engineering works	469.4	244.7	52
Dry-farming and Stockbreeding	147.2	45.2	31
Integrated agricultural projects	45.6	29.8	65
National Development repayments	41.5	24.0	58
TOTAL	988.0	584.5	59

II - Trends and Objectives

The agricultural policy is the combination of resources and measures instituted for the purpose of achieving the objectives laid down by the Government. It covers all aspects of the problems of the rural sector and is long-term in outlook. It is broken down, however, into more detailed annual or multi-annual programmes. The success of such a policy lies primarily in its permanence and the consistency of its objectives.

1 - Search for an economic optimum

Morocco possesses many and abundant resources: irrigable land, a climate which allows very diversified farming and finally a strength and will to work which is the envy of many.

Compared with this natural and human wealth, the financial and technical resources are limited or at least quite inadequate in face of the needs of economic growth. The difficulty lies in selecting the various possible uses to ensure a more rapid growth in the agricultural sector; if the present situation were to continue much longer Morocco would be faced with the problem of maintaining a food balance and a trade deficit. The method adopted aims at achieving an economic optimum and necessitates calculations and a reasoned choice, designed to avoid wastage and a dispersal of effort.

- Choice of investment

In order to eliminate arbitrary economic decisions, a criterion for the selection of investments was laid down. It consists in comparing the benefits and the cost of relatively similar projects. As no scale is available by which the degree of future depreciation can be measured, the procedure adopted consists in comparing the rates of internal profitability of the various projects and classifying them in decreasing order of priority. The logical conclusion of this method results in the maximum incremental value to the agricultural sector and benefit to the Nation being achieved.

The Five Year programme resulting from the implementation of this method achieves the desired economic optimum. If new investment possibilities or new projects subsequently came to light a new investment programme would have to be prepared to integrate and classify them in relation to the projects already adopted.

- Choice of cultivations

The range of possible cultivations in Morocco is extremely varied and their selection should be made with care. A general policy should therefore be laid down for agricultural production which will result in farming schemes being prepared for the various projects.

The same principle of comparing benefits and costs governs the choice of cultivations which are classified in order of economic importance. This method enables a study of any particular type of cultivation to be undertaken and for its economic profitability to be compared against any other projects.

Agricultural or climatic difficulties may be included in the economic study or sometimes its conclusions may not be followed. Nevertheless where a soil is capable of supporting a wide range of cultivations, the choice between them should be made according to some economic criterion, otherwise the result will be a less effective use of the country's resources.

- Choice of techniques

Rational utilisation of the resources at the country's disposal demands a reasoned choice of techniques to be used. There are two criteria which are complementary to one another which influence the choice of techniques. Preference between two identical techniques should be given to the one which makes the maximum use of local products and the least foreign currency. Systematic application of this principle will result in an appreciable improvement in the balance of payments and favour the effect of the rate of investment increase.

With two similar techniques, the choice should fall on the one which makes the maximum use of local labour. An analysis of the various operations carried out by the services of the Ministry of Agriculture and Agrarian Reform demonstrates that it is possible to increase recourse to the National Development method and achieve a greater use of labour instead of greater mechanisation. The National Development should rapidly become over the course of the next five years a proven technique for draining off labour forces. In order to be effective it should obviously apply to development operations or to equipment work which represent an undeniable economic interest.

The search for an economic optimum, whilst ensuring a more rapid economic growth than that achieved over the past fifteen years could provoke an imbalance which, in the long term, could become intolerable. The search for an economic optimum should therefore be balanced by the search for a balanced development.

2 - Search for a balanced development

A balanced development is the basic objective of the agricultural policy conceived within a long-term perspective. This is achieved by various methods applied in the field concerned.

- Balance in time

The peasant seeks above all to derive the maximum immediate income from his plot of land, from the grazing land or even from the neighbouring forest. This individual preoccupation is equitable but it sometimes results in an enormous destruction of the national heritage. Indeed nature and man combine to deprive the land rapidly of all substance.

The geogaphical situation of Morocco and its climate render it liable to extensive soil erosion and torrential rains wash hillsides and carry away solid matter to the sea. After these rains come months of drought which dry up the land, reducing it to dust which is borne away by strong winds.

Man also shares a large part of the responsibility. Land is becoming increasingly scarce and the peasant is obliged to concentrate his numerous crops and above all his herd into a restricted area. Because of the smallness of his holding and the gradual reduction of common grazing land, the peasant is forced to demand more and more from the land without restoring to it any of its natural constituents. The land becomes exhausted and pastures overcrowded, the forests are cut down and put to the fire. The peasant cultivates on slopes which in a few years become full of gullies. The damage resulting from erosion has still not been accurately measured. Surveys are being undertaken to measure this but it is even now quite clear that the damage is very extensive. Erosion in fact causes a loss of arable land which is denied to farming and washed away into the sea. The peasant feels this loss immediately in the poorer yields he achieves. The solid matter washed away by the torrents silts up the major water reservoir works, the cost of which is extremely high and the life span of which is thereby reduced by several years. The same matter carried away by the rains silts up the river ports and reduces the depth of water needed for the passage of large ships, resulting thereby in higher dredging costs.

The most disastrous consequence of erosion, however, is certainly the increase in the flooding it causes. The land swept by heavy rains loses its vegetation protection and only retains a very small proportion of the heavy rainfall which is a characteristic of our Mediterranean climate.

The future balance will consist of comparing the present negligible increase in production on certain land subject to erosion and the present and future losses of arable land and the probable reduction of land suitable for cultivation. Such a comparison justifies major intervention by the State to safeguard the national agricultural heritage and to devote every effort to the struggle against this soil erosion and the destruction of the forests.

This balance in time can only be conceived on a nationwide level as a distant perspective, beyond the immediate preoccupations of individuals. This balance should form the basis of the State's action in the economic field.

- Balance in space

The forces of economic progress involve perforce a centralisation of schemes and undertakings in the more privileged regions from the point of view of natural resources and geographical situation. Enormous poles of attraction tend to be set up which deprive the remainder of the country of its living forces and may even in the short-term plunge other areas into prolonged economic recession.

The State decided to avoid any disorderly development of regions or wide disparities between regions and to encourage a regional equilibrium. This balance in space may sometimes compete with certain economic criteria but it remains nonetheless justifiable.

In these cases even if it does not provide the solution, the method will at least enable the cost of the regional planning and its effects to be determined.

The space development of the national territory will be carried out by means of a policy of incentivation and encouragement and particularly by means of a wider concept of water engineering development. The space balance justifies adoption of an integrated development policy upstream and downstream of the slope catchment rather than isolated schemes in both parts of the catchment. The organisations particularly responsible for ensuring a balanced development of the national territory should ensure that the problem of regional planning is attacked from a national point of view.

- Balance of income

Agriculture employs 70% of the population and the objective of the agricultural policy in the final analysis is the economic and social development of this important section of the population. Analysis has shown that the standard of living is lower in the country than in the towns, life expectancy is less and medical care and education are less extensive. In all fields there is an appreciable difference between the town and the country. This situation is more or less general all over the world and explains to a large extent the drift from the land. This situation could be accepted with resignation by attempting to accelerate urban development. Morocco, however, is an agricultural country: the Government therefore has given priority to agricultural growth rather than to economic and social development. Implementation of such a policy requires that the two present basic causes of the stagnation in the rural sector and its low output be remedied.

All the efforts made up to now to introduce technical progress into the countryside have been blocked by the mistrust and conservatism of the peasant. The State has expended considerable sums in the agricultural sector without being able to alter the attitude of the peasants, without the advisers and the local authorities having been able to persuade them to change their methods, except in certain specific cases where the benefit or improvement in the situation of the peasant was tangible and even immediate. This phenomenon is easily explained: the peasant lives in a precarious economic equilibrium. Indeed the present distribution of ownership:

- 5 to 10% of heads of agricultural households owning more than 60% of land,
- 50 to 55% owning 40% of land,
- 40% owning nothing,

means that the majority of peasants either own no land at all or own very small holdings. With very limited resources available which scarcely suffice to feed their families, peasants are in no position to accept any economic risk whatsoever. Farming methods, their implements, their social groupings and associations and even their outlook are all closely linked and form a "rural unit". None of these factors can develop in isolation and independently of the others. Rural development is only possible at the technical and human level simultaneously. This rigid "rural unit", entrenched in an inextricable maze of associations (khemmassat, khobza, azzaba) of agricultural production and stockbreeding cannot be broken down unless the main objective is the improvement in the standard of living of the traditional farmer.

Action at the human level therefore lies in the benefit to the country and in raising its level of income.

Realisation of these objectives demands the adoption of the means by which they can be achieved; the investment programme translates these objectives into figures and formulates them into a coherent whole ensuring achievement of a rate of growth of its gross incremental value of 2.1% at the end of the Plan.

The programme, however, cannot give tangible results, however modest, unless the leglislative measures designed to ensure that the socio-economic framework is adapted to progress and economic development are adopted.

III - PROGRAMME OF ACTION

The five year programme translates the objectives of the national agricultural policy into specific schemes touching on all aspects of the rural sector.

Profitability surveys have been undertaken with a view to classifying the major investment projects in the irrigated areas. The results of these investigations were taken into account although there are other non-economic criteria which share in influencing the final choice of the programme. These criteria take into account the inter-regional balance and decisions already made by the State.

State action will concern the three main agricultural sectors:

- the irrigated areas
- the bog areas
- stockbreeding

These production schemes will be completed by logical supporting programmes:

- research
- instruction and the need for senior grades
- studies
- Land Conservancy and Topographical Service
- various equipment

A - IRRIGATED AREAS

The State has pursued for a number of years a policy of water engineering development of extensive regions. Action in this field demands high technical skill, close co-operation with farmers and considerable financial resources.

In spite of difficulties encountered in the past this policy will be continued and extended during the 1968-1972 Five Year Plan. Strengthened by the experience of several years, however, the State will provide the socio-economic, technical and financial resources before carrying out its programme.

Investment in the Regional Development Offices will continue, land utilisation equipment and water engineering work will be extended and co-ordinated in order to provide farmers with fully developed land, a modern irrigation system and rational cultivation programmes. This phase will be followed by an intensive advisory and propaganda programme in order to ensure the full co-operation of farmers.

1 - THE MAIN LINES OF THE PROGRAMME

State intervention will embrace the seven agricultural regional development offices set up by the Dahir of 22 October 1966. Projects however will not be on the same scale everywhere. Priority will be given to the completion of work in the regions which have already in the past been the subject of major development schemes. New regions will be partially developed, completion of the work being postponed until after the five year period. New projects will also be undertaken. Total investments in the irrigated areas will amount to 671 million dirhams over the five year period.

Intervention in the agricultural regional development offices is grouped under six main headings which outline all types of intervention involved.

1.1. - Overall surveys

These surveys record, according to the region, all water resources and draw up either integrated development plans or simply additional investigations enabling specific projects to be set in motion. The surveys are also concerned with the pedology of sectors where irrigation is to be extended. Expenditure in relation to these surveys is estimated at 21 million dirhams. Other more general studies outside the competence of an Office are dealt with in the chapter "Agricultural Production Support Schemes".

1.2. - Water engineering equipment

The combined water engineering equipment in the integrated regions accounts for an investment of 523 million DH. This is broken down into external equipment, internal equipment and regrouping.

- External equipment

This equipment comprises on the one hand the main works supplying water to the irrigation sectors and on the other hand the distribution network.

Main works

This concerns primarily the main canals, the sanitary drains, and branch works as well as pumping stations and discharge pipes in the case of the upper service sectors. It should be noted that over the five year period the cost of the main work is not in proportion to the area to be developed. This is due to the necessary delay between construction of the infra-structure and the actual development of the area. The cost of the main works is 154 million DH.

The networks

This equipment consists of the secondary and tertiary gravity irrigation channels and the embedded pipes for spray irrigation.

Until the past few years the system had been designed to provide one point for each holding whatever its size. It was therefore either inadequate in the case of large holdings or too compact and therefore too costly in the case of the smaller holdings. Furthermore, a rational additional development inside the holdings was not always possible.

For some years now, however, the system has been developed along "rational" lines, connecting the external and internal equipment to a regulator at each quaternary embedded channel spraying a farming area common to a number of holdings.

Irrigation is collective along the channel which has many advantages. It provides the framework to facilitate systematic development of the internal equipment and crop rotations. It also enables the State to control the implementation of cultivation schemes.

These principles are also valid for spray irrigation. It should be noted that this will be utilised on a large scale for the first time in Morocco in the period 1968-1972. Plans have been made in fact to develop 5,700 hectares in Doukkalas and Loukkos by means of this system. Development of the network will account for a total area of 116,800 hectares, including the development of 10,200 hectares under small- and medium-scale water engineering works. The investment involved amounts to 252 million DH.

Regrouping

This operation which is carried out prior to developing the irrigation and drainage network in order to render it economic and viable is preceded by other work. This involves land survey and registration which, through not having been carried out at the proper time has in the past hindered implementation of regrouping schemes and consequently development programmes. In order to remedy this, these operations will be better co-ordinated in the future. Surveys and group registration will be more effectively scheduled.

Regrouping will involve 116,550 hectares during the Plan and will cost 12 million DH.

Internal equipment

This programme embraces all land development work which constitutes the vital adjunct to the external equipment. The aim is to make plots of land suitable for cultivation over the whole of their area and under the best productivity conditions. This work includes:

- land clearance, sub-soiling, ploughing followed by removal of stones to clear the land of weeds, break up encrusted soil and, in certain cases, the rocky layers which reduce the depth of soil which the plant can use.

- levelling ground so as to render plots of land completely irrigable and to provide a sufficient slope for effective irrigation, preventing both erosion and stagnation of water.

- the internal network of irrigation and drainage channels. With spray irrigation this network includes supply pipes and mobile spray ramps.

This aspect of development, long neglected because of its situation inside private property, is now acknowledged to be an absolute necessity in valorising investments made in adjoining properties.

The State will therefore systematically increase its activities up to the plant stage by assuming the initiative for and the technical direction of the work. By carrying out major projects (hydraulic engineering schemes) the work will be technically more rational. It will also be less costly than if carried out in isolation in view of the movement of the heavy equipment entailed.

Similarly, out-of-date methods will be discarded where mechanised work was carried out under State supervision with the machinery being sent to numerous small and scattered sites where supervision was difficult. Experience has shown that this system is extremely costly to the State which is thus providing huge hidden subsidies.

The Plan provides for the clearance of 34,500 hectares and work on levelling and on the internal network (gravity and spray irrigation) involving 94,950 hectares. This operation will require an investment of 105 million DH. The share of the credit in this sum amounts to some 80 million DH.

Comparison of the land to be provided with an external network with the land where internal equipment will be developed shows that the latter is considerably less extensive than the former. This may seem to contradict the principle of keeping a balance between the two operations as was the case in the past. This imbalance is explained by the fact that in certain areas (namely: Tafilalet and Ouarzazate), irrigation is not an innovation. In some cases irrigation has even been carried out intensively by farmers who, by careful husbandry, achieve good yields from their holdings. Intervention inside these plots of land would also be difficult and irrational in view of their small size and the plantation density. The action recommended in these areas is solely to construct main work and to replace the external system, adding to it and if need be, rendering it water-tight in order to reduce loss of water.

1.3 - Development of Bog areas

This heading comprises operations concerned with areas situated within the boundaries of the Regional Offices but outside the areas irrigable from the main reservoirs. The development concerns primarily:

- small- and medium-scale water engineering, equipment which takes advantage of existing irrigation possibilities from underground water or by tapping springs. This equipment involves some 10,200 hectares.

- development of certain piedmont areas by means of construction of terraces, banks and channels. This work is of considerable importance both for these areas and for the irrigated regions which are thus safeguarded against run-off waters.

- drainage work in the low-lying areas.

Development of the bog areas will necessitate an investment of 41 million DH, a considerable part of the development being carried out under the National Development scheme.

1.4 - Rural equipment

This operation is intended to place at the disposal of the Communities situated within the areas of operation of the Regional Offices a social infra-structure to meet the needs of the rural population. This equipment will to a large extent come under the National Development. Financing is ensured partly by the supplementary or provincial budget and partly by th Ministry of Agriculture and Agrarian Reform which will be spending 22 million DH for this purpose.

1.5 - Economic equipment

This heading concerns the processing and transformation factories for products, excluding the sugar factories which come under the Ministry of Industry.

The plan provides for the construction in this context of:

- cotton ginning factories
- niora drying factories
- oil works
- date processing factories
- a lucern processing factory
- an olive processing factory
- a henna processing factory
- the dairy industry comes under the stockbreeding programme.

This equipment represents an overall investment of 9 million DH. Investment is preceded by nationwide market surveys which enable production targets to be set according to demand and ensure full use being made of the existing production capacity.

1.6 - Service installations

Extension of the irrigated areas necessitates the setting up of a development infra-structure to advise farmers and to place at their disposal the technical facilities and requisite services to obtain implementation of the recommended techniques and cultivation schemes.

This infra-structure consists on the one hand of Regional Office buildings and the new Development Centre buildings and, on the other hand, the purchase of equipment for these new Development Centres and replacing vehicles of the existing Centres. The equipment allocated for stockbreeding (nursery sheds, farm sheds, mating stations, etc.) is included in the programme for this scheme.

The service installations will represent an investment of 50 million DH, 25 of which for buildings and 25 for equipment.

1.7 - Advisory Service

This heading covers various activities: cultivation tests, particularly sugar beet, tree planting, vine growing, subsidy for the purchase of farming tools, audio-visual activities. The investment involved amounts to approximately 5 million DH.

SUMMARY TABLE OF INVESTMENT IN THE IRRIGATED AREAS

(1,000 DH)

		1	2										
			Water-engineering equipment										
	%	Studies	Main Works	Network	Internal equip- ment	regroup- ing	TOTAL 2	Devel- opment of the bog areas 3	Econ- omic equip- ment 4	Rural equip- ment 5	Service install- ations 6	Advi- sory Serv- ice 7	Gra Tot
oulouya	17	-	28,500	48,500	26,480	2,300	105,780	1,250	1,200	2,035	5,400	840	116,5
harb	10.5	-	15,220	23,850	14,800	940	54,810	3,900	-	3,150	8,700	800	71,3
ebou	6.4	-	14,220	21,620	6,000	1,500	43,340	-	-	-	-	-	43,3
adla	17.0	-	21,890	54,780	19,830	1,900	98,400	2,862	4,500	-	9,600	800	116,1
oukkala	6.5	-	9,540	12,140	6,660	1,700	30,040	1,050	1,600	4,300	6,650	800	44,4
aouz	17	5,500	16,010	40,810	17,000	2,220	76,040	22,394	-	3,210	7,100	800	115,0
afilalet	8.5	6,040	19,710	15,500	-	-	35,210	9,300	800	3,126	3,270	300	58,0
uarzazate	5.8	2,370	15,500	7,500	3,600	-	26,600	-	900	6,000	3,200	300	39,3
oukkos	4.5	1,100	8,500	12,600	4,200	500	25,800	-	-	-	3,000	100	30,0
ous-Massa	5.4	5,990	5,100	14,950	6,600	700	27,350	-	-	-	3,530	-	36,8
OTAL....	100	21,000	154,190	252,250	105,170	11,760	523,370	40,756	9,000	21,821	50,450	4,740	671,13

SUMMARY TABLE OF EXTERNAL EQUIPMENT

(hectares)

		1968	1969	1970	1971	1972	
MOULOUYA		2,000	7,000	7,000	6,000	5,500	27,500
GHARB		2,660	3,200	2,000	2,000	4,000	13,860
SEBOU		-	-	-	2,000	4,000	6,000
DOUKKALAS		4,000	1,200	-	500	500	6,200
TADLA		6,300	4,000	6,500	3,000	2,500	22,300
HAOUZ	Major hydraulic works	-	4,250	4,000	4,000	4,000	16,250
	Small-scale water engineering works	1,490	1,550	910	850	200	5,000
TAFILALET	Major hydraulic works	4,000	3,000	1,500	2,000	1,100	11,600
	Small-scale water engineering works	200	400	1,500	1,850	1,250	5,200
OUARZAZATE		300	300	1,000	1,000	1,000	3,600
LOUKKOS		-	-	1,000	1,000	1,500	3,500
SOUS-MASSA					3,000	3,000	6,000
Major hydraulic works		19,260	22,950	23,000	24,500	27,100	116,810
Small-scale water engineering works		1,690	1,950	2,410	2,700	1,450	10,200
		20,950	24,900	25,410	27,200	28,550	127,010

SUMMARY TABLE OF INTERNAL EQUIPMENT

(hectares)

	1968	1969	1970	1971	1972			
						Clearance	Levelling	Spraying
LOWER MOULOUYA								
Clearance	6,000	7,500	5,000	-		18,500		
Levelling	7,000	4,500	6,000	3,500			21,000	
GHARB								
Levelling	3,850	4,700	2,000	2,000	4,000		16,550	
SEBOU								
Levelling	-	-	-	2,000	4,000		6,000	
DOUKKALA								
Clearance	500	500	500	500	500	2,500		
Levelling	4,750	-	-	-			4,750	
Internal spray equipment	-	1,200	-	500	500			2,200
TADLA								
Clearance				3,000	1,500	4,500		
Levelling	6,300	4,000	6,500	1,500	2,500		20,800	
HAOUZ								
Clearance	1,000	1,000	1,000	1,000	1,000	5,000		
Levelling	-	4,250	4,000	4,000	4,000		16,250	
OUARZAZATE								
Levelling	-	600	1,000	1,000	1,000		3,600	
LOUKKOS								
Internal spray equipment	-	-	1,000	1,000	1,500			3,500
SOUS-MASSA								
Clearance	-	-	-	2,000	2,000	4,000		
Levelling	-	-	-	3,000	3,000		6,000	
TOTAL Clearance :	7,500	9,000	6,500	6,500	5,000	34,500		
Levelling :	21,900	18,050	19,500	17,000	18,500		94,950	
Spray :	-	1,200	1,000	1,500	2,000			5,700

Regrouped area

(hectare)

	1968	1969	1970	1971	1972	TOTAL
LOWER MOULOUYA	6,000	7,000	7,000	3,000	3,000	26,000
SEBOU	2,000	4,000	6,000	9,000	9,000	30,000
GHARB	-	-	2,000	4,000	-	6,000
DOUKKALA	3,000	5,000	5,000	-	-	13,000
TADLA	-	-	3,000	3,300	7,000	13,300
HAOUZ	-	4,250	4,000	4,000	4,000	16,250
TAFILALET	-	-	-	-	-	-
OUARZAZATE	-	-	-	-	-	-
LOUKKOS	-	1,000	1,000	1,500	1,500	5,000
SOUS-MASSA	-	-	2,000	2,000	3,000	7,000
TOTAL	11,000	21,250	30,000	26,800	27,500	116,550
Land re-utilisation (specific Sebou operations)	-	20,000	20,000	25,000	25,000	90,000

2. - Programme by Office

2.1. - Moulouya

The Lower-Moulouya Office has a target of developing 27,500 hectares in irrigation and drainage networks; at the same time 18,500 hectares will be cleared and 21,000 levelled. This relatively rapid rate of development is dictated by the need to make the existing infra-structure profitable as soon as possible: the Mechra Klila dam in operation in 1967, main works on the left and right banks. This equipment has sufficient capacity to irrigate 70,000 hectares but only 17,500 hectares are developed at the present moment.

The land to be developed has been centralised in areas where the main works have already to a large extent been carried out (Triffa lower service, Bou Areg, Zebra). The other areas (Gareb, Triffa upper service) where extensive infra-structure is needed have been deferred beyond 1972.

The total water-engineering equipment accounts for an investment of 105.78 million DH broken down as follows:

- 28.5 million DH for main works, concerning primarily the G and D Bou Areg canals and extension of the Main Canal, lower service, into Triffas East.
- 48.5 million DH for the second and third class networks.
- 26.5 million DH for internal equipment (incl. levelling and clearance), 6 million DH of which as a subsidy.
- 2.3 million DH for regrouping.

The areas being regrouped and provided with external and internal equipment are broken down as follows:

External equipment

(hectares)

	1968	1969	1970	1971	1972	TOTAL
Triffa, lower service		2,500	2,500	2,500	1,500	9,000
Bou Areg	2,000	2,500	2,500	2,500	2,000	11,500
Zebra		2,000	2,000	1,000	2,000	7,000
TOTAL	2,000	7,000	7,000	6,000	5,500	27,500

Internal equipment

(hectares)

	1968	1969	1970	1971	1972	TOTAL
a) Levelling						
Triffa, lower service	-	1,500	1,000	-	-	2,500
Bou Areg	3,500	3,000	3,000	2,000	-	11,500
Zebra	3,500	-	2,000	1,500	-	7,000
Total levelling	7,000	4,500	6,000	3,500	-	21,000
b) Clearance						
Triffa, lower service	-	1,500	1,000	-	-	2,500
Bou Areg	3,000	3,000	3,000	-	-	9,000
Zebra	3,000	3,000	1,000	-	-	7,000
Total clearance	6,000	7,500	5,000	-	-	18,500

Regrouping

(hectares)

	1968	1969	1970	1971	1972	TOTAL
Triffa, lower service	3,000	4,000	-	-	-	7,000
Triffa, upper service	-	-	3,000	3,000	3,000	9,000
Zebra	-	-	4,000	-	-	4,000
Bou Areg	3,000	3,000	-	-	-	6,000
TOTAL	6,000	7,000	7,000	3,000	3,000	26,000

These tables show that the areas to be provided with internal equipment are less extensive than those to be equipped with an external system. This is due first to the fact that 3,000 hectares have already been cleared in Bou Areg and, secondly, to i being impossible to generalise internal development in the Triffas plain because of plantations and extensive land being owned by foreigners.

The other operations account for 10% of expenditure, or 10.7 million DH. The economic equipment includes the building of two oil-works and a niora drying factory to the amount of 1.2 million DH.

Investment Programme of the Lower Moulouya Regional Agricultural Development Office

(in thousands of DH)

	Investment
1. General Study	
2. Water-engineering equipment	105,780
2.1 - External equipment	
- Main works	28,500
- Networks	48,500
2.2 - Regrouping	2,300
2.3 - Internal equipment	26,480
3. Development of the bog areas	1,250
4. Rural equipment	2,035
5. Economic equipment	1,200
6. Service installations	5,400
6.1 - Buildings	
- Office	520
- Development Centre	2,300
6.2 - Equipment	
- Office	900
- Development Centre	1,680
7. Agricultural intervention and advisory service	840
TOTAL	116,505

2.2. GHARB

The development schemes of the Regional Office at Gharb have hitherto had a dual purpose: continuing the development of the irrigated area at Sidi Slimane and utilisation of the bog areas through carrying out large-scale drainage schemes.

The start of the first development region at Sebou and the consequent incompatibility between the drainage systems designed to bank up and the irrigation system incorporated in the project, necessitate the drawing up of a new policy of action in the bog areas to be irrigated. It would, indeed, be illogical to carry out development work which an extension of irrigation would render useless. The schemes adopted in the bog areas, therefore, are solely concerned with replanning the main drains which evacuate the run-off water and flood waters. On the other hand development of the Sidi Slimane area, independently of the Sebou project, will be continued and completed before 1972. The land equipped with an external network will be increased by 8,860 hectares, bringing the irrigable area to 36,000 hectares; this is more than the 30,000 hectares initially provided for on completion of the entire development project.

Raising the level of the El Kansera Dam was intended to ensure intensive irrigation of these 30,000 hectares even in years of drought. The studies recently undertaken, however, have indicated the possibility of raising the dam by 6 metres instead of 4, thereby providing for a reserve in excess of initial estimates and extending irrigation over a further 6,000 hectares. The choice fell on the Zrhar region, situated south of Sidi Slimane where the land is rich. This region which is outside the range of the main canal will be irrigated by pumping from the Oued Beth.

Apart from the Sidi Slimane region, 5,000 hectares of reclaimed land situated in the Moghrane-Tazi area will be developed. This land will be distributed into plots and developed as rice-fields, irrigation being by pumping from the Oued Sebou. Partitioning of the Moghrane Tazi land will come under the Sebou project which provides for its development over a period. The date of completion of this operation, however, has been brought forward in view of the need to distribute this land at the earliest possible moment.

The Office's programme, in fact, can be summarised by the development of networks over 13,860 hectares and the internal development of 16,550 hectares. Regrouping will involve some 6,000 hectares.

The breakdown of this land is as follows:

(hectares)

	1968	1969	1970	1971	1972	TOTAL
External equipment						
Sector 1 C bis	1,400	-	-	-	-	1,400
R'cam community	-	1,200	-	-	-	1,200
Distribution of Chehblya...	260	-	-	-	-	260
Distribution of Moghrane Tazi..	1,000	2,000	2,000	-	-	5,000
Extension of the Zrhar	-	-	-	2,000	4,000	6,000
TOTAL	2,660	3,200	2,000	2,000	4,000	13,860
Internal equipment						
Levelling and internal networks						
Sector 1 C bis	700	-	-	-	-	700
Sector 1 B	650	-	-	-	-	650
R'cam community	-	1,200	-	-	-	1,200
Sectors 6;7,8 and 9 of the Sidi Slimane region...	1,500	1,500	-	-	-	3,000
Distribution of Moghrane-Tazi..	1,000	2,000	2,000	-	-	5,000
Extension of the Zrhar......	-	-	-	2,000	4,000	6,000
TOTAL	3,850	4,700	2,000	2,000	4,000	16,550
Regrouping						
Extension of the Zrhar	-	-	2,000	4,000	-	6,000

The internal development is not, in fact, only concerned with the newly equipped areas but also with certain sectors which are already developed (sectors 1 B, 6, 7, 8 and 9 of the Sidi Slimane region).

The distribution operations will involve 6,460 hectares (Cheblya, Moghrane-Tazi reclaimed land and the R'cam community). The various projects of the Regional Office at Gharb will require an investment of 71 million DH, the water-engineering equipment accounting for 76%, or 54.8 million DH, including:

- 15 million DH for the main works (widening the main canal at Sidi Slimane, construction of an upper service canal at Zrhar).
- 23.8 million DH for the second and third class networks.
- 0.9 million DH for regrouping (extension of the Zrhar).
- 14.8 million DH for internal equipment.

This expenditure does not include the operations coming under the Sebou Project, allowance for which is made elsewhere.

Investment Programme of the Gharb Regional Agricultural Development Office

	Investment (in 1,000 DH)
1. General Study	
2. Water-engineering equipment	54,310
2.1 - External equipment	
- Main works	15,220
- Networks	23,850
2.2 - Regrouping	940
2.3 - Internal equipment	14,800
3. Development of the bog areas	3,900
4. Rural equipment	3,150
5. Economic equipment	-
6. Service installation	8,700
6.1 - Buildings	
- Office	750
- Development Centre	2,750
6.2 - Material	
- Office	500
- Development Centre	4,700
7. Agricultural intervention and advisory service	800
TOTAL	71,360

2.3. SEBOU

The Sebou Project is one of the new schemes to be initiated during the five year period. Operations should commence in 1968. After 20 to 25 years the project, which embraces the whole of the Rharb plain, should provide irrigation for 200,000 hectares, including the region of Sidi Slimane and other land already irrigated by pumping from the Sebou.

The schemes will be based on development areas demarcated in relation to agrarian structures and agricultural features. The Rharb therefore is divided into five development regions. The first covers 90,000 hectares of which one section, amounting to 38,300 h., will be developed under the first stage and irrigated by the Arabat reservoir.

At the end of the Five Year Plan 6,000 hectares situated between Sidi Abdeaziz and Mechra Bel Ksiri will have been developed and 6,000 hectares will be under process of development. Internal equipment will cover 6,000 hectares.

This equipment should be preceded (in accordance with the draft project) by a large-scale land reorganisation: the "land redevelopment". The purpose of this operation is to set up coopératives as extensions of the existing local communities. The village territory will be demarcated to ensure for each family an average plot of aproximately 5 hectares. Reclaimed areas and State land which together account for a third of the land suited for cultivation in the Gharb, should be sufficient to set up holdings of this size.

The whole of these operations represents an investment of 43 million DH.

It is to be noted that this programme only takes into account water-engineering equipment; other schemes are dealt with in the programme of the Gharb O.R.M.V.A. (Regional Agricultural Development Office). The cost of the land redevelopment is listed pro memoria pending clarification of the means for the implementation and financing of this operation.

Investment Programme for the Sebou Project

(in thousands of DH)

	TOTAL
1. - General studies	-
2. - Water-engineering equipment	43,340
2.1 - External equipment	
- main works	14,220
- networks	21,620
2.2 - Regrouping	1,500
Land redevelopment pro memoria	
2.3 - Internal equipment	6,000
3. - Development of the bog areas	
4. - Rural equipment	
5. - Economic equipment	
6. - Service installations	
6.1 - Buildings	
- Office	
- Development Centre	
6.2 - Material	
- Office	
- Development Centre	
7. - Agricultural intervention and advisory service	-
TOTAL	43,340

2.4. TADLA

The programme of the Tadla Regional Development Office covers the external equipment of 22,300 hectares, clearing 4,500 hectares and the levelling and internal network work over 20,800 hectares.

The overall investment amounts to 116 million DH.

The relatively rapid rate of this development is motivated both by the need to adhere to the planning programme of the Beni-Moussa West project which is being financed externally and by the aim to accelerate the use of the Bin El Ouidane reservoir for irrigation purposes.

General studies will be made throughout the five year period for the purpose of demarcating the extension of the irrigable areas East of the Beni-Moussa and West of the Beni-Amir. The cost of these studies is not included under the present programme as they are outside the scope of the Tadla Office; the resources of the Oum-Er-Rbia in fact are limited compared to the irrigable areas and they should therefore be distributed among the various Offices to ensure their optimum utilisation, only retaining those extensions which are economically the most viable and laying down an order of priority for these. The cost of these studies is shown under the heading "agricultural production support schemes".

Water-engineering equipment accounts for 80% of the investmen or 98.4 million DH, including:

- 21.9 million DH for the main works: completion of Canal G (3rd and 4th sections) of the Median East Canal, the Median West Canal (2nd and 3rd sections) and carrying out the run-off water work.
- 54.8 million DH for the irrigation and drainage networks.
- 1.9 million DH for regrouping.
- 19.8 million DH for internal equipment.

The land covered by the external and internal equipment and also by regrouping is broken down as follows:

(hectares)

External equipment	1968	1969	1970	1971	1972	Total
Bou Moussa I	6,300	-	-	-	-	6,300
Dar Ould Zedouh	-	3,000	-	-	-	3,000
El Arich	-	1,000	1,500	-	-	2,500
Bou Moussa II	-	-	5,000	-	-	5,000
Development Centre 507	-	-	-	3,000	-	3,000
Development Centre 504	-	-	-	-	2,500	2,500
TOTAL	6,300	4,000	6,500	3,000	2,500	22,300

(hectares)

Internal equipment	1968	1969	1970	1971	1972	Total
a) Levelling						
Bou Massa I	6,300	-	-	-	-	6,300
Dar Oul Zedouh	-	3,000	-	-	-	3,000
El Arich	-	1,000	1,500	-	-	2,500
Bou Moussa II	-	-	5,000	-	-	5,000
Development Centre 507	-	-	-	500	-	500
" " 504	-	-	-	1,000	1,500	2,500
Other sectors in the Beni-Moussa East	-	-	-	-	1,000	1,000
TOTAL	6,300	4,000	6,500	1,500	2,500	20,800
b) Clearance						
Development Centre 507	-	-	-	1,000	-	1,000
" " 504	-	-	-	1,000	-	1,000
Other sectors in the Beni-Amir and Beni-Moussa	-	-	-	1,000	1,500	2,500
TOTAL	-	-	-	3,000	1,500	4,500

(hectares)

Regrouping	1968	1969	1970	1971	1972	Total
Development Centre 507	-	-	3,000	-	-	3,000
" " 504-506	-	-	-	3,300	-	3,300
" " 503	-	-	-	-	3,000	3,000
" " 508	-	-	-	-	4,000	4,000
TOTAL	-	-	3,000	3,300	7,000	13,300

These tables indicate that at the end of the Plan:

- 16,800 hectares will have been provided with a network system in the Beni-Moussa, bringing the total area equipped in this region to approximately 68,000 hectares. The external equipment of the Beni-Moussa will have been completed, except for the strip of 3,000 hectares extending between the R.P.24 and Canal G and consisting of mediocre quality, very hilly land. The question of developing this strip will be decided in the light of further studies to be carried out.

- 5,500 hectares will be equipped in the Beni-Amir. This will involve the replanning of a decrepit network which causes extensive water losses and is ill-suited to crop rotations. Work will continue beyond the five year period to cover the whole of the Beni-Amir (29,000 hectares).

- only 4,500 hectares will be cleared. This is because clearance work has been undertaken for a number of years, with priority given to those sectors to be irrigated. The Development Centre 507 also has a very small area which will be internally developed compared with the area equipped with a network; this is because this sector has extensive tree plantations.

Apart from the water-engineering equipment, the other operations account for an investment of 17.8 million DH, which includes 4.5 million DH for economic equipment. This equipment includes the building of a new cotton ginning factory and modernisation of existing factories to enable them to cope with the anticipated growth in cotton production.

Investment Programme of the TADLA Regional Agricultural Development Office

(in thousands of DH)

1. General Studies	-
2. Water-engineering equipment	98,400
2.1 - External equipment	
- main works	21,890
- networks	54,780
2.2 - Regrouping	1,900
2.3 - Internal equipment	19,830
3. Development of the bog areas	2,862
4. Rural equipment	-
5. Economic equipment	4,500
6. Service installations	9,600
6.1 - Buildings	
- Office	400
- Development Centre	3,700
6.2 - Material	
- Office	2,000
- Development Centre	3,500
7. Agricultural intervention and Advisory Service	800
TOTAL	116,162

2.5. DOUKKALAS

First mention should be made of the problems and options whi govern continuation of the development policies of the Doukkalas Regional Agricultural Development Office.

This region is supplied by the Imfout dam which plays the rôle of a simple branch structure because of its considerably reduced capacity (27 million m3). Extension of the irrigable land is therefore governed by the low water flow from the Oum-Er-Rbia at Imfout. This flow can be increased to the level required by releasing water from the Bin El Ouidance dam, the capacity of which (1,200 million m3) is in excess of the requirements of the Tadla tributary of this dam (800 million m3).

This solution presupposes that irrigation is the priority use for this dam, which is not the case at the moment. The water use to produce electricity during the winter is lost to irrigation. From summary estimates it appears that under present conditions of exploitation of the Bin El Ouidane reservoir and taking accou the increase of the irrigated region in the Beni-Moussa (68,000 hectares in 1970), the available resources only allow for an area of some 21,000 hectares in the Doukkalas to be irrigated.

As first, present and estimated power requirements would se to exclude priority being given to irrigation in the exploitation of Bin El Ouidane and, secondly, as a new dam on the Oum-Er-Rbia (Sidi Cheho) could not begin operations until 1975, the extension of the Doukkalas should be confined to present possibilities. Only 6,200 hectares therefore will be developed, bringing the tot equipped area to 21,200 hectares at the close of the Plan.

The overall investment amounts to 44.4 million DH.

Studies will be undertaken to determine the final extension of the region. The cost of this is not incorporated in the present programme because of the interconnexion with the investigation into the distribution of the Oum-Er-Rbia waters also incorporated under the heading "Agricultural production support schemes".

The cost of the water-engineering structures amounts to 30 million DH, distributed as follows:

- 9.5 million DH for the main works, including:

dredging the main canal to raise it to the capacity requi for irrigating the whole of the lower service regions, developme of which will be continued beyond the period of the Plan.

reservoirs on the Oued Faregh and Oued Aouja which will be used to control the flood waters. The Oued Faregh reservoir will serve to irrigate 1,000 hectares.

- 12 million DH for the external network (gravity and spray).
- 1.7 million DH for regrouping.
- 6.6 million DH for internal equipment (gravity and spray).

Spray irrigation will cover 2,200 hectares. This new method is required because of the nature of the land and its topography

Application of this method on such a scale for the first time in Morocco and the results obtained will enable the possibilities of its extension to wider areas to be assessed. Internal spray equipment includes antennae, mobile pipes and sprinklers.

The areas to be equipped, developed and regrouped can be broken down as follows:

. External equipment (hectares)

	1968	1969	1970	1971	1972	Total
Sidi Smail (by gravity)	4,000	-	-	-	-	4,000
Boulaouane (spray)	-	1,200	-	-	-	1,200
Region irrigable by the Faregh reservoir (spray)	-	-	-	500	500	1,000
TOTAL ...	4,000	1,200	-	500	500	6,200

. Internal equipment (hectares)

	1968	1969	1970	1971	1972	Total
a) Clearance of distributed areas at Boulaouane and in the Faregh	500	500	500	500	500	2,500
b) Sidi Smail levelling	4,750	-	-	-	-	4,750
c) Spray	-	1,200	-	500	500	2,200

Regrouping

(hectares)

	1968	1969	1970	1971	1972	Total
Sidi Bennour	3,000	1,000	-	-	-	4,000
Zemara	-	4,000	5,000	-	-	9,000
TOTAL	3,000	5,000	5,000	-	-	13,000

The other operations account for an investment of 14.4 million DH. Mention should be made of the development of the bog areas including 3,900 hectares of land to be distributed, 2,600 hectares of which are situated at Bouchau and 1,300 hectares spread over the region. A cotton ginning factory costing 1.6 million DH will also be built. The anticipated cotton production justifies this factory.

Doukkalas Investment Programme

(in thousands of DH)

	Investment
1 - General Studies	-
2.- Water-engineering equipment	30,040
- External equipment	
Main works	9,540
Networks	12,140
Regrouping	1,700
- Internal equipment	6,660
3 - Development of the bog areas	1,050
4 - Rural equipment	4,300
5 - Economic equipment	1,600
6 - Service installations	6,650
- Buildings	
- Office	1,050
- Development Centre	1,800
- Material	
- Office	1,050
- Development Centre	2,750
7 - Agricultural intervention and Advisory Service	800
TOTAL	44,440

2.6 - HAOUZ

The programme of the Haouz Regional Development Office includes two main schemes:

- development of the integrated region of the Up-Stream Tessaout, irrigable from the Ait Aadel reservoir over 16,250 hectares.

- development of small- and medium-scale water-engineering works in the other areas under this Office. 5,000 hectares will be developed along these lines.

Development of the Up-Stream Tessaout region is one of the priority schemes. Completion of the dam is scheduled for 1972 and development of the land should be accelerated so that the controlled waters can be used as soon as possible.

The Up-Stream Tessaout project covers an area of 27,000 hectares, already partly irrigated by means of the traditional "seguias" network. This more or less intensive irrigation is subject to the very irregular supply of water from the Oued Tessaout.

The work carried out hitherto consists of the Agadir Bouchiba Dam and the branch gallery. The development programme planning will deal first with the East Branch of the main canal and the main Right Bank and Left Bank canals extending along the Tessaout. This priority work is designed to supply the present traditional seguias and to ensure normal irrigation while the additional equipment is being installed in the water-engineering sectors. A hiatus between the present and future situation will thus be avoided.

The small- and medium-scale water-engineering schemes consist of:

- developing the pumping system in the downstream area of the Upper Tessaout in order to use the water resources of the underground layers. The layer is very near the surface in this region. Gravity irrigation is impracticable. Pumping installations will also be developed in the N'fis and Tensift undergroung layers.

- improving the output piped from the "rhettaras" and springs. This development will largely come under the National Development programme.

Other work will also be carried out in areas which are not irrigable but complementary to the above mentioned water-engineering structures. This work consists of development of piedmont areas under the National Development including building banks, terraces, small stone overfalls to dam the "talwegs" and stop the run-off waters. This equipment and the small-and medium-scale water-engineering works come under the heading of: "development of the bog areas".

The programme outlined above represents an investment of 115 million DH.

The general studies account for 5.5 million DH. Their objective is to study the underground water resources by carrying out an extensive drilling programme and to draw up a general draft project for developing the Haouz. The preliminary investigation made in 1964 which was followed by several development schemes resulted in the draft project for the Up-Stream Tessaout scheme. Similar programmes should be drawn up for the remainder of the Haouz.

These studies should be co-ordinated with the more general study carried out to determine the optimum distribution of the Oum-Er-Rbia waters incorporated under the heading "Agricultural production support schemes".

The cost of the water-engineering equipment amounts to 76 million DH, including:

- 35 million DH for the main works: main canals, East, Left Bank and Right Bank branches.
- 20.8 million DH for the netowrk.
- 2.2 million DH for regrouping.
- 17 million DH for internal equipment.

Expenditure under the heading: "development of the bog areas" amounts to 22 million DH.

The areas to be regrouped and equipped with a network can be broken down as follows:

(hectares)

External equipment	1968	1969	1970	1971	1972	Total
Up-stream Tessaout		4,250	4,000	4,000	4,000	16,250
Small water-engineering works	1,490	1,550	910	850	200	5,000
TOTAL	1,490	5,800	4,910	4,850	4,200	21,250
Internal equipment						
Up-stream Tessaout						
Levelling		4,250	4,000	4,000	4,000	16,250
Clearing	1,000	1,000	1,000	1,000	1,000	5,000
Regrouping						
Up-stream Tessaout		4,250	4,000	4,000	4,000	16,250

The areas to be equipped with small- and medium-scale water engineering works are the redistributed land, broken down as follows:

(hectares

	1968	1969	1970	1971	1972	Total
Freita	650	650	200	200	-	1,700
Joulla	-	400	250	350	-	1,000
Hanout El Bekkal	30	40				70
Rosine	150					150
M'Hammedia	340	250	210			800
Ferdi	100	20				120
Ouidane		140	200	200	200	740
Ain Jdida	220	-	-	-	-	220
Sidi Zouine	-	50	50	100	-	200
TOTAL.........	1,490	1,550	910	850	200	5,000

Investment Programme of the HAOUZ Regional Agricultural Development Office

(in 1,000 DH)

1. General studies	5,500
2. Water engineering equipment	76,040
2.1 - External equipment	
- main works	16,010
- networks (1)	40,810
2.2 - Regrouping	2,220
2.3 - Internal equipment	17,000
3. Development of the bog areas	22,394
4. Rural equipment	3,210
5. Economic equipment	-
6. Service installations	7,100
6.1 - Buildings	
- Office	1,450
- Development Centre	3,000
6.2 - Material	
- Office	1,050
- Development Centre	1,600
7. Agricultural intervention and Advisory Service	800
TOTAL	115,044

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(1) The purchase of water rights is included under network expenditure.

2.7. TAFILALET

The area irrigable from the Hassan Dakhil reservoir includes the middle Ziz valley (4,000 hectares) and the plain of Tafilalet (approximately 7,600 hectares).

These regions are at the moment irrigated intensively by means of traditional systems consisting of earthwork networks and branch agricultural systems.

Irrigation at present is irregular because of the extreme variability of the Oued Ziz water supply. The volume guaranteed in summer will be greater than at present. The dam will also be able to control flood waters.

There will be no increase in the area of land under irrigation but irrigation will be intensified through the waters being controlled. The effect of this intensification should treble the gross incremental value under the present crop rotation system. The benefits will be even greater if richer cultivations are grown.

The overall volume of investment amounts to 58 million DH.

The general studies, costing 6 million DH, should enable (between 1968-1972) a draft project to be prepared for the integrated development of the regions of the middle Ziz valley and the plain of Tafilalet. The cost of the topping and photogrammetry work is incorporated under this heading.

The water-engineering equipment for which an investment of 35 million DH will be required includes only building the main branch and dead end works and the replanning and eventual sealing of the existing earthwork system. The equipment does not include either regrouping or the internal equipment. Regrouping is not necessary under the present system of distribution of property and the cultivation techniques (manual working). It is also difficult to apply because of the density and irregularity of the plantations. Internal development has already been carried out for a long time by the farmers themselves.

The investment scheduled for other operations amounts to 16.7 million DH, 9.3 million DH being allocated for development of the bog areas. This latter operation is particularly important in the Tafilalet and, in addition to the work on the catchments, includes an extensive programme of small water engineering works.

The areas to be equipped during the Five Year Plan can be broken down as follows:

(hectares)

	1968	1969	1970	1971	1972	Total
Large-scale water engineering works	4.000	3.000	1.500	2.000	1.100	11.600
Small-scale water engineering works	200	400	1.500	1.450	1.850	5.400
Ansegmir	200	200	200	200	600	1,400
Zidallah		200	500	550	750	2,000
Boudnib			800	700	500	2,000
Grand Total	4,200	3,400	3,000	3,450	2,950	17,000

Investment Programme of the Tafilalet Regional Agricultural Development Office

(in 1,000 DH)

	Investment
1. General Studies	6.040
2. Water-engineering equipment	35.210
2.1 - External equipment	-
- main works	19,710
- networks	15,500
2.2 - Regrouping	-
2.3 - Internal equipment	-
3. Development of the bog areas	9.300
4. Rural equipment	3.126
5. Economic equipment	800
6. Service installations	3.270
6.1 - Buildings	
- Office	1,000
- Development Centre	200
6.2 - Material	
- Office	1,270
- Development Centre	800
7. Agricultural intervention and Advisory Service	300
TOTAL	58,046

2.8. OUARZAZATE

The area irrigable from the Zaouia N'Ourbaz reservoir is situated in the middle valley of the Draa from Agdaz to Ghozlane. This is a very extended region in a very deep and narrow valley.

At the present stage of development, 18 to 20,000 hectares are irregularly irrigated, depending on the Oued Draa water supplies. The relative abundance of water from this Oued compared with present cultivation has not up to now resulted in as intensive a use of water as in the Tafilalet. These abundant resources, however, after their control, will enable more extensive areas to be developed. The dam will also fulfil the rôle of controlling the flood waters.

The overall investment required by the various programmes amounts to 39.4 million DH.

The studies (2.4 million DH) which should be carried out throughout the years 1968-1969 should enable the development schemes and programmes to be finalised. The present programme contains a wide margin of uncertainty and should be readjusted when the results of the various studies are available.

An investment of 26.6 million DH is scheduled under the water-engineering schemes which comprise two types of project:

- the construction of branch and dead end works bringing water to the palm-tree plantations. Very little development will be carried out inside the latter; 6,000 hectares approximately should benefit from this development.

- External equipment and internal development of new areas in the Zagora and Tagounit regions over an area of 3,000 hectares. 600 hectares will also be developed and distributed in the Skoura region to thos farmers whose land is submerged by the Zaouia N'Ourbaz reservoir.

Investment Programme of the OUARZAZATE Regional Agricultural Development Office

(in 1,000 DH)

1. General Studies	2,370
2. Water-engineering equipment	26,[illegible]00
2.1 - External equipment	
- main works	15,500
- networks	7,500
2.2 - Regrouping	-
2.3 - Internal equipment	3,600
3. Development of the bog areas	-
4. Rural equipment	6,000
5. Economic equipment	900
6. Service installations	3,200
6.1 - Buildings	
- Office	-
- Development Centre	1,200
6.2 - Material	
- Office	800
- Development Centre	900
7. Agricultural intervention and Advisory Service	300
TOTAL	39,370

2.9. LOUKKOS

Loukkos is among the new projects which will be initiated during the Plan. A very thorough investigation has been made of this area, the results of which place it among the most profitable of the projects.

The scheme has three primary objectives:

1. to equip and develop a net area of 28,500 hectares, 11,000 hectares of which are situated in the plain (between Ksar El Kebir and Larache) and the remainder in the plateaux of R'mel, Soueir and Drader.

2. to safeguard the plain against sea water rising in the bed of the river which occurs in summer when the Oued waters are low. This protection will be achieved by means of a dam to be built near Larache.

3. to control the winter flood waters which cause extensive damage in the plain (floods of January 1963) by enlarging the T'fer dam and by carrying out large-scale diking, Oued branches and drainage.

The general structure of development has been designed differently from the majority of the other projects. Instead of being controlled from the dam through main canals, the waters are released into the Oued and pumped to several points. This concept reduces the cost of development and the time required for carrying out projects and also renders the equipment in various major sectors independent from each other, thus enabling those where there is the greatest economic interest to be dealt with first.

Spray irrigation is the recommended method as the land is either very impermeable (plain) or very permeable (R'mel). The topography of the R'mel also demands this method.

Over the period of the Plan the scheduled investment amounts to 30 million DH.

Studies account for 1.1 million DH. These involve additional pedological investigations and a study of the resources of the Souier and Drader underground waters. These resources have been estimated in the draft project.

Water-engineering equipment necessitates an investment of 25.8 million DH, including:

- 8.5 million DH for the main works: the Drader dyke, the Upper R'mel and Soueir pumping stations and the discharge pipes for supplying the Drader reservoir. The Drader reservoir (20 million m3) will be supplied throughout the winter by the Loukkos. The reserves thus accumulated will be used to irrigate the Drader region throughout the summer, thus reducing the cost of the discharge works. Development of the Drader network system (4,000 hectares) should commence in 1973.

- 12.6 million DH for the network: pumping stations, discharge pipes and supply pipes to the irrigable areas from the Soueir and Drader underground waters.

- 0.5 million DH for regrouping.

- 4.2 million DH for internal equipment e.g. antennae and mobile spray equipment.

The remaining investment is taken up by the service installations (3 million DH) and the agricultural interventions (0.1 million DH). Nothing is scheduled for development of the bog areas and for rural equipment as the territorial boundaries of the eventual Regional Office at Loukkos have not yet been finalised.

External equipment will involve 3,500 hectares situated in the regions irrigated from the Soueir and Drader underground water: 1,000 hectares in 1970, 1,000 in 1971 and 1,500 in 1972.

Internal equipment constituted by the additional spray system will cover the same areas.

The area to be regrouped can be broken down as follows:

	1968	1969	1970	1971	1972	Total
Soueir and Drader areas		1,000	1,000	1,500	-	3,500
Drader region				1,500	-	1,500
TOTAL		1,000	1,000	3,000	-	5,000

- Investment Programme for the Loukkos Project

	(1,000 DH)
1. **General studies**	1.100
2. **Water-engineering equipment**	25.800
2.1 - External equipment	
- main works	8,500
- networks	12,600
2.2 - Regrouping	500
2.3 - Internal equipment	4,200
3. **Development of the bog areas**	-
4. **Rural equipment**	-
5. **Economic equipment**	-
6. **Service installations**	3.000
6.1 - Buildings	
- Office	600
- Development Centre	1,200
6.2 - Material	
- Office	600
- Development Centre	600
7. **Agricultural intervention and Advisory Service**	100
TOTAL	30,000

2.10 SOUSS-MASSA

a) Souss

The water system formed by the plain of the Oued Souss is an important source of water for agriculture. Two important factors dominate the partial studies already carried out:

- The underground water resources are over-exploited and under-utilised.
- The surface water resources are not, or very little, over-exploited and are poorly used.

10,000 hectares are at present irrigated and it is estimated that this area can be increased to approximately 30,000 hectares.

b) Massa

The extreme irregularity of the Oued Massa water supplies and the lack of land suited for cultivation near the Oued have hitherto prevented utilisation of these extensive resources. Approximately 4,000 hectares are at the moment irrigated by means of the Petit Massa dam.

It is proposed to transfer the Massa waters, after their control by the Tankist dam, into the Chtouka plain and eventually into the Ait Melloul region. The areas irrigable by means of these resources will vary between 7,000 and 12,000 hectares, including 1,000 to 1,500 hectares in the Petit Massa. It is also proposed to tap the resources of the Chouka underground water, about which little is yet known.

The Moroccan Government, the F.A.O. and the P.N.U.D. will undertake a joint study of all the catchments of the Souss and Massa.

The objective of the Souss mission will be to determine the existing potentialities of water and irrigable land and to investigate the development schemes to ensure their optimum use. The investigations will also cover stockbreeding and forestry programmes.

The first phase of the studies will last for two years (1968-1969). Subsequently a second phase of investigations, more detailed than the first, will be undertaken.

The overall investment scheduled in the Souss-Massa region amounts to 36.8 million DH.

The cost of the studies will be 6 million DH, 4.5 DH representing the Moroccan share in the Souss Project and 1.5 million DH for the Massa survey which will be undertaken by the Government jointly with the Souss Mission.

The investment scheduled for water-engineering works will amount to 27.35 million DH, including:

- 5.1 million DH for the main works (main canal at Massa)
- 7.3 million DH for the network in the Chtoukas and Souss
- 0.7 million DH for regrouping
- 4.2 million DH for internal equipment.

The other programmes are confined to the service installations (3.5 million DH). Nothing is scheduled for rural equipment or development of the bog areas.

Areas to be developed and regrouped under the Plan.

(hectares)

Internal and external equipment	1968	1969	1970	1971	1972	Total
Massa...............	-	-	-	1,500	1,500	3,000
Souss	-	-	-	1,000	1,000	2,000
TOTAL	-	-	-	2,500	2,500	5,000
Regrouping						
Souss-Massa	-	-	2,000	2,000	3,000	7,000

Investment Programme for the Souss-Massa Project

(1,000 DH)

1. General studies	5.99[illegible]
1.1 - Souss (1)	4,490
1.2 - Massa	1,500
2. Water-engineering equipment	27.350
1 - Massa	
- main works	5,100
- networks	7,350
2.2 - Regrouping	700
2.3 - Internal equipment	4,200
2 - Souss,	
- networks	7,600
2.3 - Internal equipment	2,400
3. Development of the bog areas	-
4. Rural equipment	-
5. Economic equipment	-
6. Service installations	3.530
6.1 - Buildings	
- Office	825
- Development Centre	1,600
6.2 - Material	
- Office	300
- Development Centre	800
7. Agricultural intervention and Advisory Service	-
TOTAL	36,870

(1) Moroccan contribution: not including the expenditure allocated to waterways and Forests and to Stockbreeding: 1,103,000 DH (852,000 in 68 - 251,000 in 69)

B - BOG AREA

State action in the bog area involves large numbers of farmers and concerns vast areas and the country's major crops. It is not of the same spectactular nature as the schemes in the irrigated areas, but it nonethless influences the economic and social spheres. In the long-term if this scheme is pursued, improved upon and properly organised, it can have a considerable influence on Morocco's economy.

A study into the profitability of this project is difficult to carry out; it has only been partially completed in respect of the whole project but the partial studies concerning certain integrated schemes indicate that the profitability of bog reclaiming projects can be greater than certain irrigation schemes.

State intervention among farms is through the intermediary of technical advisors in a network of work-centres covering practically the whole country. This intervention has the following main outlets:

- advisory service

- expanding the number of viable holdings by distributing reclaimed or State land.

- extension of small- and medium-scale water-engineering works

- higher yield from the main traditional cultivations or their replacement by more productive crops.

- extension of tree planting, soil protection and reinstatement and reafforestation.

These various schemes are followed up by State intervention in the marketing and processing of agricultural products. The corresponding equipment is grouped under the heading "Economic Equipment".

Improvement in the health and living conditions of farmers wil be gainedby such provisions as: the piping of drinking water supplies, water points, improvement of the souks, electrification etc. These schemes are grouped under the heading "Rural Equipment".

State action in the bog areas can only be given further impetus, however, if the work-centres and the various provincial services dispose of sufficient agricultural equipment, buildings, accommodation, etc. These are grouped under a single heading "Service Installations".

DERRO Project

In view of the special nature of this project all the agricultural schemes incorporated under it have been grouped together. It thus forms a unified project.

Projects carried out by the Regional Development Offices in the bog areas are still included in their programmes and do not therefore appear in this chapter. Similarly, all stockbreeding schemes are grouped together in a single chapter.

1 - The major State schemes

1.1 - Advisory Service

A programme of advice and education is an essential ingredient of success for State schemes. The modernisation of agriculture will be achieved through the intermediary of the farmers. Technical progress will extend into rural life as soon as peasants become convinced that such progress will bring them definite economic benefits.

State action in this field will be continued and reinforced by the encouragement of farming groups, the setting up of professional bodies with specific objectives in the spheres of technical and economic educational schemes.

The advisory service will include such different traditional methods as growing competitions, aid to co-operatives, aid for the introduction of new crops or else such new methods as audio-visual means, television, brochures, posters, circulars, etc.

The total cost of the various schemes will amount to 13.9 million DH. over the five year period.

1.2 - Distribution of Land

The State indicated its desire to provide a long-term balanced distribution of property and to raise the standard of living of farmers without land or possessing very small holdings.

This was the purpose of the Royal Decree and Law of 4th July 1966 authorising the distribution of agricultural land or land to be used for agricultural purposes.

This regulation represents in fact a contract between the State and the beneficiary farmer.

- The State provides for the beneficiary the land, farming implements, agricultural credits and the necessary supervision.

- The beneficiary undertakes to farm his holding rationally, to intensify its development and to co-operate with other farmers in order to facilitate relations with the Government.

This land distribution policy is now firmly established, the basic regulations are there and their implementation is proceeding smoothly.

75,000 hectares will be distributed during the course of th Five Year Plan. The cost which will be chargeable to the State will amount over the same period to 30 million DH.

The medium-term agricultural credits needed for farming these holdings will amount to 37.5 million dirhams.

1.3 - Small- and medium-scale water-engineering works

Over the country as a whole a considerable proportion of irrigable land lies outside the large demarcated regions.

In fact, according to the results of the various studies undertaken to date, the total area of irrigable land exceeds one million hectares which can be broken down as follows:

- areas coming under the Regional Agricultural Development Offices: approximately 640,000 hectares;

- other regions: approximately 400,000 hectares, of which only 60,000 hectares can be considered to be already developed.

The number of regions of small or average size which remain to be developed is therefore considerable.

It is also pertinent to point out that any investment in a "bog area" intended to irrigate new land however restricted in area, will have an appreciable effect on the economy of a region where the few rare irrigated hectares account for a sizeable proportion of total income.

The difficulties involved, however, are extensive because of the scattered nature and small area of the sites. Before any site is opened, therefore, it should be preceded by a detailed survey of the conditions of its viability. Where a grouping of minor water-engineering schemes is feasible in a region, this will be given priority as the cost of operations will thereby be appreciably reduced.

Minor water-engineering schemes will always have some economic importance as the amount of investment per hectare there is much lower than in the large irrigation regions. The gross product there, however, is still less than in the major irrigated regions. The profitability of schemes in these smaller regions however is still worthwhile.

Furthermore, as complete development can be carried out fairly rapidly, initial investment can begin to show much quicker returns than is the case with major water-engineering works.

The first two years will be devoted to making thorough surveys of the regions and their situation, as the area to be developed is nonetheless fairly extensive, and to accelerating the pace of development over the three remaining years.

The total area to be developed during the five year period of the Plan amounts to 50,000 hectares.

Investments chargeable to the State will amount to 101 million DH, 91.5 million of which for financing the studies and 9.5 million for carrying out the development.

1.4 - Action concerning the yield of the major cultivations or their replacement by more productive crops

a) - Operation "fertilisation"

In order to encourage the adoption of modern farming methods over the wide area where traditional farming methods are preponderant, the State intends gradually to take action wherever this should be feasible. This action will be co-ordinated in order to provide the peasant with a higher income which will encourage him to continue his own efforts once Government aid is reduced. This aid concerns supplies of fertilisers and original stock seeds.

i) - Fertilisers

In order to encourage the use of fertilisers and to generalise their use in areas with sufficient rainfall, the State will grant a subsidy.

An integrated programme for the use of fertilisers and original stock seeds with improved means of drawing has already been instituted. It will cover 500,000 hectares under corn at the end of the Plan or an annual increase of 40,000 hectares.

The cost of the operation which will be chargeable to the State will amount to 17.2 million dirhams.

Apart from the integrated projects, fertilisers will be supplied to farmers over an area of 150,000 hectares at the end of the Plan, or an annual increase of 25,000 hectares. The cost of this operation will amount to 4 million dirhams.

ii) - Original stock seeds

In order to have sufficient quantities of good quality original stock seeds, private growers should be encouraged to produce seeds by means of sufficiently attractive bonuses. Reproduction should remain under the control of the Directorate of Agricultural Research in order to guarantee technical quality.

The use of original stock cereal seeds considerably improves yield; the State, therefore, will grant extensive bonuses during the Five Year Plan 1968-1972. These will amount to 10.9 million dirhams for the production of seeds and 16.5 million dirhams for their marketing. This major subsidy will affect production; providing farmers with supplies of original stock seeds at identical prices in all provinces over the five year period will represent 3.6 million quintals.

In addition to these bonuses the State will encourage production of hybrid and oil-bearing maize, the incentivation subsidy amounting to 1.6 million dirhams.

b) Fodder operation

The introduction of fodder crops in areas where they are not at present grown and their extension in areas where they already exist is absolutely vital. Considerable quantities of meat are lost from the country's livestock each year because of inadequate feeding during difficult seasons and more generally through under nutrition. In order to improve and intensify feeding as planned under the "stockbreeding" programme, the fodder operation started a few years ago will be extended and intensified.

It consists mainly of State financial aid to:

- encourage production of original stock fodder seeds;
- encourage farmers to devote part of their land each year to fodder cultivation.

This aid will take the form of:

- payments of a bonus to original stock seed producers;
- supplying original stock seeds at reduced prices and the free distribution of maize to farmers growing fodder crops.

The compensation maize distributed in this way is supplied through external aid. The cost chargeable to the State covers handling, storage and transport costs.

As in previous years, original stock seeds will be supplied to farmers in 1968 free. State financial aid, however, cannot last indefinitely and farmers will be expected to pay a progressive financial share towards the purchase of original stock seeds.

Bonuses for the production of selected fodder seeds will amount to 6.7 million dirhams during the five year period. The State will then purchase these at a cost of 14.1 million dirhams for redistribution among the peasants.

This operation, which will cover approximately 55,000 hectares at the end of the Plan, or an annual increase of 5,000 hectares, will cost 20.8 million dirhams.

c) Tilling

1 - Provision of farm implements

It is neither possible nor desirable to replace completely animal or hand-drawn systems by mechanically drawn means. On the contrary, teams should be used as far as possible to enable small farmers conveniently to prepare and cultivate their land. Their methods, however, can be improved by adopting implements which are more up-to-date and better suited to their methods.

The more widespread use of farm implements has two advantages:

- tilling is more effective

- it constitutes progress and therefore modernisation.

The State will subsidise the purchase of farm implements by farmers. The cost to the State budget over the period of the Plan will be 4 million dirhams.

This subsidy will enable some 30 to 40,000 family holdings to be equipped.

ii - Subsidies for the purchase of tractors for farming co-operatives.

To enable farmers to become mechanised wherever this is likely to facilitate tilling the State will subsidise the purchase of tractors by farm machinery co-operatives. This investment will be financed partly by the farmers (self-financing and medium-term loans from the Agricultural Fund) and partly by the State on the following basis:

The State will be responsible for 5.1 million dirhams and the share to be financed by medium-term agricultural credits will be 8.5 million dirhams. The remaining cost will be borne by the farming co-operatives and will amount to 3.4 million dirhams.

This subsidy and the credits granted to farmers will enable some 500 tractors to be purchased over the five year period.

d) Dry land regrouping and land improvement

i - Regrouping

Regrouping of bog areas will be undertaken as an experiment and will cover an area of 13,000 hectares in the region of the Mechra-Bel-Ksiri sugar beet complex.

This experiment may be extended to other areas where small-scale water engineering works are scheduled if it proves sucessful. The cost of this operation will amount to 1.3 million dirhams.

ii - Land Improvement

Although dry regrouping is on an experimental basis, land improvement is now quite essential. This covers all aspects of land development. It generally precedes agricultural work properly so-called and usually facilitates this. It involves clearing the land of stones, palms, planning fruit or cereal terraces, the correction of gulleys, etc.

State participation in this work will take the form of subsidies.

The total cost thus chargeable to the State will amount to 4 million dirhams over the next five years.

1.5 - Development of tree and vineyard planting

The country's fruit tree needs will increase under the Five Year Plan 1968-1972 which will necessitate approximately 900 hectares being planned as nurseries; only 230 hectares of these exist at the moment.

Tree planting schemes aim to increase the number of Morocco's orchards both traditional, such as olive, almond and fig trees and more "modern", selected species, the yield from which should be promising. This will be achieved through the distribution at cost price of plants grown in the State nurseries and by planning pilot orchards. These new or replanned orchards will be used for instruction and advisory services (pruning, cutting etc.).

Investment in the fruit nurseries will amount to 2 million dirhams. Distribution of plants will involve a cost of 2.65 million dirhams to the State and the latter's direct intervention in orchard schemes will cost 2.75 million dirhams.

The credits allocated for vineyards, particularly for the maintenance of the reinstated Riff vineyards and the planting of a dessert grape vineyard are not included in the summary table. Financing will be provided by the vine growing fund.

1.6 - Programme of the Directorate of Waterways, Forests and Soil Conservancy

Forests play an important rôle in Morocco's agricultural policies in view of their many influences on the economic life of the country.

- Their economic influence: by supplying the home market with such essential materials as fire wood, charcoal or building timber, by supplying Morocco's industry with traditional raw materials such as cork and tannin or new materials such as mining timber or composition wood and finally by exporting overseas raw materials such as alfa, semis such as corks, cork agglomerates or cellulose paste.

- Their physical influence: stabilising hillside topsoil and prevention of erosion, mountain springs and stream control thereby protecting valleys against floods.

- Their social influence: by no means the least important as a considerable proportion of the rural population lives in the forests: woodmen exploiting cork or tan bark, peasants lopping branches to make tent poles etc.. in short, a whole section of the population more or less derives its income from the forests.

- Their recreational and touristic influence: the importance of which will increase in the future.

The five year Waterways and Forests programme will be specifically concerned with:

i - Production

Yield can be increased from natural forests by:

- increasing supervision and demarcating forest areas;

- utilisation of forests and woodland: only 10% of the total area of forests is developed, or 20% of production forests. Production from these forests however, is constant every year; after development, therefore, yield can be estimated to increase by some 50%, particularly from coniferous forests.

- the results of the work and forestry research investigations.

ii - Development

- forestation and reafforestation will involve 70,000 hectares, priority being given to conifers from which are derived those products most useful for the economy. Among deciduous forests special attention is given to the poplar. There are also 105,000 hectares being studied for reafforestation schemes.

- S.P.R. work, pasture improvement and stabilisation of dunes involve 76,000 hectares. Added to this programme are surveys involving 200,000 hectares in the Ksar Es Souk and Marrakesh provinces.

The pisciculture programme includes:

- The planning of four lakes with special permits for trout fishing. The development of fishing stretches along the Oueds. Setting up a pike breeding station.

- The following construction work is scheduled to enable the above mentioned schemes to be put into effect:

Houses and maisonettes	283
Administrative buildings	6,400 m2
Opening up of tracks	2,900 km
Telephone lines	1,200 km

The five year programme of schemes coming under the Directorate of Waterways and Forests amounts to 157.5 million dirhams and can be broken down as follows:

(in 1,000 DH)

Project	
- Reafforestation	70,000
- S.P.R.	52,300
- Utilisation of forests	4,500
- Forestry research	2,700
Telephone lines and forest housing	10,000
Opening up of paths and tracks	15,000
Pisciculture and similar	300
Administrative buildings	2,700
TOTAL	157,500

The work on waterways and forests will be carried out largel under the National Development programme and will account for 20 million working days.

2 - The equipment

2.1. - Economic equipment

The setting up of large industriel units such as sugar and canning factories and oil seed processing factories is at the moment dealt with under the Ministry of Industry. Other factori however, for which the Ministry of Agriculture and Agrarian Refor is responsible tend to have a considerable influence on the economies of certain regions. For example:

- the transformation or processing of harvests considerably improves marketing possibilities and encourages farmers to produce better yields;

- the setting up of processing factories encourages introduction of new crops (Agar - sisal) and the creation of allied activities which provide the additional income essential to balance a very precarious "country budget".

Under the Five Year Plan, therefore, it is proposed to set up a number of pilot factories for the processing of agricultural products, with the main object of "trying out and initiating" a larger scale movement and complementing development which has already been carried out within the framework of regional modernisation projects. The experience acquired in certain fields (date processing for example) will perhaps in the years to come enable factories to be set up for export purposes.

The State will bear a proportion of the cost. Management of the factories will be in the form of co-operatives wherever producers are prepared to assume the responsibility for them.

The types of industries envisaged are as follows:

- Oil factories and olive canning factories
- Dairy industries (stockbreeding programme)
- Niora processing factories
- Fig processing factories
- Fruit processing plant
- Date co-operatives
- Agar-sisal processing factory

Further studies will have to be undertaken at the start of the five year period for certain of these projects.

The amount scheduled for these investments is 2 million DH over the period of the Plan.

2.2 - Rural equipment

The basic equipment schemes for the local communities, aimi to provide rural inhabitants with the infra-structure to meet their basic elementary requirements, should be incorporated in any co-ordinated agricultural development programme.

The State has always made considerable efforts in this field and these will be continued under the Five Year Plan.

In fact, the equipping of the rural communities constitutes one of the tasks of the Ministry of Agriculture and Agrarian Reform and its intervention in this field is twofold:

- sharing the financial burden of providing this equipment and providing the necessary means for this work to be carried out;

- assuming the management of work which is not subsidised (surveys, market research, site supervision).

This development work concerns a total of 676 rural communities and represents an investment of 53 million dirhams over the duration of the Plan.

The work consists of water surveys (wells, drilling, water piping etc.)

- Planning water points
- Cost of bringing up water supplies (pumping station, canal system, water tower).
- Improving the souks
- Electrification, etc.

The State has made considerable efforts to equip local communities. However, too much development is falling into decay through lack of maintenance. The technical services of the Ministry of Agriculture will have to confine themselves to carrying out new work. They do not have the necessary facilities for maintenance operations although these are nonetheless essential. Local communities should be responsible for maintenance and should urgently provide the necessary facilities for this work to be carried out. Unless steps are taken in the very near future the sucess of previous investment will be jeopardised.

2.3 - Service Installations

Once the Regional Agricultural Development Offices were set up it became essential also to set up new provincial services.

Certain provinces are also inadequately equipped and do not offer present staff satisfactory working conditions. The arrival of new technicians requires the building of additional offices. The parallel construction of accommodation has been confined to the strict minimum; this, however, is essential in areas far removed from towns and where rented accommodation is practically non-existant

An effective advisory and training service presupposes daily contact between the staff and the rural populations in question. Moreover, the mobilisation of Government facilities for the benefit of farmers should be immediate and this presupposes that th necessary means be available on the spot. In order that these structures can be integrated into the organised rural communities they were set up in the form of one Work-Centre per Area and generally one Sub-Centre per rural community.

It is essential to provide the basic equipment for the 13 Work-Centres already set up but which so far have not been completed.

The State tractor stock will number 890 in working order by 1972. This stock will be improved by eliminating worn out tractors to be renovated and by a better utilisation of the stock by work being spread out over a period, extending the working day in peak periods and by operating reduced tariffs in off peak periods.

The cost of equipment will amount to a total of 61.5 million dirhams, 23.8 million of which for the purchase of tractors, 13.9 for the purchase of motor vehicles and finally 23.8 million for building.

3 - The Derro Programme

Implementation of the Derro programme "Développement Economique et Rural du Rif Occidental" (Economic and Rural Development of the Western Riff) which extends over 25 years includes a group of integrated or specific projects spread over a period. To start the programme the first series of operations has to be selected.

The first phase which should begin in the first year of the Plan includes a group pf operations which is known as: "a programme of agricultural and forestry interest".

The project itself can be broken down into four groups of operations which have all been the object of detailed investigations:

- integrated rural development regions
- medium-scale water engineering regions
- forestry operations
- road works

The total investment to be made under the DERRO project will be 60.1 million dirhams over the five year period.

3.1 - Integrated rural development regions

Seven integrated rural regions are proposed, selected among four rural development units (U.D.R.) spread over four provinces (Kénitra, Tetouan, Fez and Taza): Amlil, Tfazza, Mazraoun, Béni-Koulla, Mekchour, Maggo and Béni-Derkoul.

The development of agriculture in the smaller mountain regions constitutes the main object of the overall DERRO programme. On the success of these initital operations will depend future extension to the whole of the Riff of the development programmes designed to safeguard this area.

The investment scheduled under the Plan for these regions will be 23.1 million dirhams which can be broken down as follows:

(1,000 DH)

- S.P.R. and land development	5,790	15,550 hect.
- Forestry plantations	2,860	2,690 "
- Fruit tree plantations	2,625	3,050 "
- Permanent pastures	4,935	6,775 "
- Minor water engineering works	945	
- Tracks	1,605	
- Rural equipment	3,015	
- Advisory service	1,325	
TOTAL	23,100	

3.2 - Medium-scale water engineering region

Two regions will be provided with medium-scale irrigation works, one situated in Tetouan province and the other in Al Hoceima province.

In spite of generally favourable conditions and reasonably extensive existing installations, agriculture and stockbreeding are still on a fairly low scale in these two regions.

The main objective is to produce an urgent and thorough transformation of the outlook, methods and traditional rural economy in order to increase production and trade to a level which justifies the proposed investment. This is why considerable proportion of investment concerns development schemes: internal equipment of holdings, incentivation and advice, marketing, research and trials.

Investment in the two regions will amount to 18.67 million dirhams over the five year period. These investments can be broken down as follows between the two areas.

(in 1,000 DH)

Nature of operation	Oued Martil	Oued Nekor	Total
General regional infra-structure	3,412	4,110	7,522
Internal development of holdings	775	-	775
Equipping the holdings (buildings and materials)	1,100	1,200	2,300
Incentivation and advisory schemes	1,436	3,050	4,486
Organising the marketing and processing of agricultural products	-	2,400	2,400
Research and investigation	507	680	1,187
TOTAL	7,230	11,440	18,670

The area to be developed amounts to 1,000 hectares in the Oued Martil and 2,000 h. in the Oued Nekor but in the final stage of development of this region some 15,000 hectares of plain and 15,000 hectares of hillside will, it is hoped, have been utilised.

3.3 - Forestry operations

Two forestry operations are planned: planting fast growing coniferous forests and replanning existing forests.

These operations involving 8,000 and 20,000 hectares respectively constitute the first stage in setting up a rational forestry programme in the Riff.

They will revive the existing saw mills which now work below capacity. They will also help control the country's increasing deficit of timber raw materials. Finally, they will contribute in solving the under-employment problem by creating new temporary and permanent jobs.

The investment involved in these two operations amounts to 18.34 million dirhams over the duration of the Plan. It can be broken down as follows:

(in 1,000 DH)

Nature of operation	Plantations	Existing Forests	Total
- Studies	-	410	410
- Plantations	10,060	-	10,060
- Development and equipment	980	5,140	6,120
- Supervisory staffing	1,230	520	1,750
TOTAL	12,270	6,070	18,340

3.4. - Road works

This work is merely mentioned here as a reminder. The roads will serve the rural development units and improve the regional network. The corresponding investment is listed under the chapter "Transport".

3.5. - Combined DERRO Programme

The following is a summary of the total investments made under the DERRO programme:

Nature of operation	Investment
- 7 integrated development regions	23,100
- 2 medium-scale irrigation regions	18,670
- 2 forestry operations	18,340
- Road network	p.m.
TOTAL	60,110

SUMMARY TABLE OF INVESTMENT IN THE BOG AREA

(in 1,000 DH)

1 - **Development Directorate Projects**	
- General studies	-
- Small- and medium-scale water-engineering works	101,000
- Rural equipment	53,000
- Development of tracks and paths	
- Regrouping and land development	5,300
- Distribution	30,000
- Fruit tree nurseries	2,000
- Economic equipment	2,000
- Agricultural projects	
Advisory programme	13,900
Tractor subsidies	5,100
Tilling	-
Fertilisers	21,200
Original stock seeds (fodder)	20,875
Farming tools	4,000
Tree planting programmes	5,420
Vine planting programmes	-
- Service installations	61,500
TOTAL	325,295
2 - **Other Directorates' Projects**	
- Original stock cereal seeds	27,400
Maize	370
Oil seeds	1,250
TOTAL	29,020
3 - **Waterways and Forests**	
- Reafforestation	70,000
- S.P.R.	52,300
- Planning of forests	4,500
- Forestry research and forestry housing	2,700
and telephones	10,000
- Opening up of tracks and paths	15,000
- Pisciculture and allied schemes	300
- Administrative buildings	2,700
TOTAL	157,500
4 - **DERRO**	
-Integrated development regions	23,100
- Medium-scale water-engineering works	18,670
- Forestry operations	18,340
- Road network	p.m.
TOTAL	60,110
TOTAL BUDGET	571,925

C - STOCKBREEDING

1 - Stockbreeding structure

Stockbreeding zones

There are three very distinct units: the major irrigated regions, the dry farming areas and the pasture lands.

- Given specific farming rules and certain precautions in harvesting methods, the fodder potential in the irrigated area is considerable. Lucern for example, given both sun and water, achieves in Morocco record yields per hectare, the product having a very high food content. The environment has been radically changed to justify the setting up of an intensive dairy livestock breeding programme based on pedigree strains. Each Office has its own objectives, but there is always room in any agronomic balance for intensive fodder production.

- Potential is generally much lower in the dry farming areas first because of climatic variations and secondly because of the small size of the average holding. Animal breeding techniques are also varied. While the yield from improved strain dairy cattle is only possible in very well-endowed regions, elsewhere improved cross-breeding will have to suffice with the aim of a mixed "dairy and beef cattle" produce. In other areas again cows will be replaced by the sedentary milk goat by means of an appropriate public propaganda scheme.

In the grazing lands stockbreeding is intensive (camel, cattle and goats).

Types of stockbreeding:

The traditional pasture type of stockbreeding is still the method adopted over practically the whole of Morocco. All animals, from cattle to poultry, feed off natural vegetation. Shelter is also rare and much of the livestock is exposed to the weather. The result is obviously sturdy country animals but there are inevitable losses which are increased in bad years through death or disease.

Modern stockbreeding methods are being rapidly developed in favourable regions. Although, however, relatively protected against weather conditions there are certain marketing difficulties in view of the seasonal nature of animal breeding in the traditional sector.

Marketing

The market for animal produce has the following main characteristics:

- it lacks organisation;

- it is seasonal with higher meat and dairy prices between September and February and lower prices between March and August.

Frozen meat storage experiments have been frequently carried out but without the anticipated success, mainly because of Moroccans' food habits.

The average consumption per head of dairy products is still very low thus acknowledging the deficient nutritional value in animal proteins. The country also imports the equivalent of 150 to 200 million litres of milk every year to a value of 40 to 50 million DH. However there are surpluses in high milk yield periods which, apart from industrial or even craft industry use cannot be properly utilised.

2 - Five Year Stockbreeding Programme

This programme combines all the stockbreeding projects but makes no prejudgement of any subsequent distribution of schemes among the Ministry of Agriculture departments.

The following operations are planned:

2.1 - Administrative structure and health units

The object is to increase the numbers of livestock. The amount of investment scheduled for the health units is broken down as follows for each operation:

Health units	Investment
- **Inspection** and treatment stations	7,500
- **Laboratories**	3,200
- **Pesticide dips**	1,120
Total	11,820
- Reduced-cost medical supplies: subsidies	180
Grand Total	12,000

Inspection and treatment stations (57)

The geographical location of new installations will take into account the density of livestock populations and the working conditions of agents.

Laboratories

A new central research and vaccine manufacturing laboratory will be built at Rabat.

Other laboratories will be re-equipped.

Pesticide dips (130)

Wherever possible equipment will be of the "mobile dip" type this is easier to use and therefore more likely to be used effectively than the present large "fixed dips". No new fixed installations will be set up unless contracts have been agreed whereby maintenance will be carried out by the communities concerned under the technical supervision of the Ministry of Agriculture.

2.2. - Increased feeding programme

This is the basis of any stockbreeding improvement scheme. The investment scheduled under the Five Year Plan concerning this operation is as follows:

(in 1,000 DH)

Increased Feeding Programme	Investment
- Fodder operation	p.m.
- Improvement of grazing land (surveys and implementation)	31,100
- Individual and co-operative fodder stocks (½ cost of group transport); subsidy	5,200
- State emergency reserves (storage installations, 100% of transport); subsidy	5,600
TOTAL food	41,900

- Improvement of Grazing land

An overall credit is planned to enable integrated surveys to be carried out in each of the particular climatic regions and providing improved grazing areas which will involve some 1 million hectares over the Plan: water points, shelter for sheep, rationalisation of pasture-land rotation, grazing improvements, planting of sturdy-type survival vegetation, liaison with the meat market fund in respect of all marketing matters and the removal of animals from these lands at certain necessary times of the year.

- Fodder stocks

The operations of the "Fodder Centres" will be divided into two distinct actions:

To improve feeding at important times (particularly when dropping young), thereby recovering much of the loss due to annual deaths or disease, a programme has been undertaken to encourage breeders to set up and use fodder reserves in the less privileged regions. The State agents will arrange and combine fodder orders. Group transport will be subsidised by half the cost of transport and in view of the considerable volume of fodder involved this will appreciably reduce tariffs.

The present premises of the existing fodder centres will as far as possible be placed at the disposal of fodder co-operatives set up to manage these centres.

. Emergency reserve stocks

These will be set up in the immediate vicinity of factories (agar factories, flour mills); these stocks will be intended for t emergency feeding of animals in the less privileged areas in years of great scarcity (exceptional dryness) or very bad weather (persistent snow). These stocks will be distributed according t need in the regions and in the amounts required.

2.3 - Genetic improvement

Special emphasis is given to cattle and particularly in the irrigated areas:

- because increased feeding schemes have the greatest chance of success there;

- because the lack of milk in the average human diet is one of the most important deficiencies to be made up.

(in 1,000 DH)

Genetic improvement	Investment
Cattle	
Selection sheds	900
Nursery sheds	17,850
Breeding stations	4,160
Artificial insemination	400
Total cattle	23,310
Sheep and Goats	
Sheep selection pens	800
Sheep nurseries	400
Goat nurseries	200
Total sheep and goats	1,400
Horses	
Stations and sub-stations	
Haras	5,000
Poultry	
Poultry farming	1,100
Bee-keeping (bee-keeping stations)	800
TOTAL Genetic improvements	31,610
Subsidies	
Purchase by breeders of pure bred cattle	3,250
Purchase of breeding animals by stock breeders	1,750
Purchase of poultry	2,000
Stockbreeding bonuses and competitions	2,000
Total subsidies	9,000
Grand TOTAL	40,610

a - Cattle

- Selection sheds

Long-term investment will provide the country with selected strains of native bred animals.

- Nursery sheds (10)

Acclimatised pure improved-strain breeding animals will be bred from imported stock.

- Purchase of pure strain cattle by breeders

Medium-term subsidies and credits are needed to enable those stockbreeders who have the essential fodder reserves to install animals bred in the nursery sheds, both male and female, or else imported animals.

Great efforts will be made to encourage the use of improved bulls belonging to individual or co-operative private breeders.

- Breeding stations (160)

If there are no pure bred bulls in the private sector the State will provide breeding stations with pure bred sires in order to improve Moroccan strains.

Breeding stations will be established where the following conditions are met:

- Definite stocks of fodder available

- Sufficient livestock density in a limited area to make the breeding station viable, i.e. ensuring an adequate rate of covering by the bulls.

The breeding station should be grouped with the appropriate milk collection centre and have a food and standard produce depot.

- Artificial insemination

The pace of animal genetic improvement should follow and not precede that of food improvement and that of the psychological advance of the peasant farmer from "grazing" to "breeding".

Pure bred improved beef and dairy cattle can only be provided to well-established breeders who can prove they have considerable stocks of fodder available.

Artificial insemination is only successful if practiced on a large scale. Morocco does indeed have the necessary infrastructure and artificial insemination centres but operation of these facilities remains well below the profitability level.

This sector will be reorganised under the Five Year Plan. Up to three of the best placed existing centres will be properly equipped and sub-stations will be set up in less privileged areas where inseminators will have an important rôle to play in encouraging animal breeding.

b - Sheep and goats

There are two reasons for the small amount of credits allocated in this field compared with the credits provided for beef and dairy cattle:

The indigenous sheep are already very well adapted to the utilisation of grazing land under local climatic conditions. It i the stockbreeding methods which should be corrected in order to recover particularly the loss incurred, rather than the choice of breeds adopted.

There are also possibilities in Morocco for the rearing of early lambs from improved strains or cross-breeding, but the market for these is limited.

Finally, the irrigated areas will specialise in the dairy industry and will utilise all the surplus rich pasture lands; this leaves little scope for the setting up of improved sheep rearing schemes.

Morocco also already has a number of sheep stations (24) which only require minor reorganisation or additional equipment.

By contrast, the four existing goat nurseries with sedentary milk goats will be replanned and revived.

- Sheep Selection Pens

The sheep pens specialising in improvement by selection from each indigenous species or imported species which are already well known in Morocco will be reorganised and re-equipped.

No new breeds can be envisaged before investigations have been carried out into behaviour and these investigations would be undertaken by the Agricultural Research Office.

- Sheep nurseries

Installations similar to the nursery sheds: rearing male sires and acclimatised females from imported sedentary milk producing strains.

- Purchase of breeding animals

Subsidies and credits are needed to induce breeders to purchase improved breeding animals.

It is essential for a contract to be drawn up between the beneficiary breeder or breeder co-operative in order to guarantee:

- the survival of the improved male: the subsidy will take the form of a preservation bonus and will be spread over a period.

- correct usage by eliminating uncontrolled covering by male animals left in the herd before going to the slaughter-house.

c - Horses

Improved agricultural output demands better farming methods but mechanised farming, for many reasons (particularly where holdings are very small), cannot be completely nationwide. This is why increase in the numbers of powerful harness teams is one of the objectives of this Plan.

Only 14% of Moroccan mares are at present covered by stallions from the Haras service. This percentage should be increased by setting up stations and sub-stations in order to bring good quality stallions closer to breeders of mares.

d - Poultry Farming

Existing poultry farms will be extended.

Policies will be standardised and close collaboration among installations at present managed by various different services is essential.

. Purchase of poultry

Breeding birds cannot be distributed at their cost price and subsidised distribution is only possible if accompanied by a general advisory programme.

e - Bee-Keeping

Additional equipment will have to be provided for beekeeping stations for the training of private bee farmers and beekeeping advisors. These stations will also have the task of encouraging and organising co-operatives for the processing and sale of honey.

f - Stockbreeding bonuses and competitions

The present policy will be continued and developed, extending prizes to all useful species.

2.2. - Stockbreeding buildings

Care for animals, improved feeding, hygienic and practical accommodation are the prerequisites for success in the use of improved animal breeds.

a - Beef and Dairy Cattle

. Nursery sheds

Modern large-scale stockbreeding units for dairy cattle are very costly to set up in terms of per animal investment.

. Farm sheds

Individual sheds rather than collective sheds ensure that the breeder takes an interest in his cattle and involve relatively low costs. It is therefore essential to encourage this type of building.

b - Sheep and Goats

Outside the pasture-lands, sheep rearing is generally practiced on the basis of very small herds and only very elementary sheds are needed. Improvement of herds, however, requires the construction of sheep and goat nursery pens.

c - Poultry Breeding

. Farm

Subsidies are needed to make poultry breeding more widespread in connexion with accommodation and minor equipment.

. Modern

Modern poultry farming needs medium-term credits for the construction of suitable buildings with adequate ventilation and practical equipment.

d - Bee-keeping

Morocco now imports honey whereas in fact we should export it. In addition to the above mentioned bee-keeping stations there should be an extensive propaganda and advisory programme directed towards beekeepers. The traditional type of beehive should be replaced by an adjustable density hive.

e - Fodder storage and silos

In addition to the programme to encourage the setting up of fodder reserves the building of individual fodder stores should also be encouraged. The present Fodder Centres, however, can provide premises for co-operative reserves.

(in 1,000 DH)

Stockbreeding buildings	Investment
Beef and Dairy cattle	
Dairy, intensive stockbreeding	400
Dairy, farm sheds	1,330
Mixed, farm sheds	120
Total beef and dairy cattle	1,850
Sheep and goats	
Pens	2,500
Sheds outside the grazing-lands	250
Total sheep/goats	2,750
Poultry farming (farm and modern)	450
Bee-keeping	
Modern (more than 50 beehives)	100
Family (more than 40 beehives)	160
Co-operative beehives (100 hives)	250
Purchase of covered hives by breeders	25
Total bee-keeping	535
Fodder stores and silos	150
TOTAL stockbreeding buildings	5,735

e - Sundry

The collecting, processing and sale of numerous products would gain from being rationalised.

Particularly as far as honey is concerned the advisory programme in favour of rational bee-keeping should be combined with the setting up of processing and sales co-operatives with a system of labelling of the best know honey produce.

Marketing	Investment
Investment	
Milk collecting centres	4,440
Berkane dairy industry	2,500
Development Fund for milk sales (1)	2,500
Meat Market Intervention Fund (2)	1,100
Slaughterhouses and cold storage(3)	
Total investments	10 540
Subsidies	
Inaugurating a Dairy Federation	500
Development Fund for Milk Sales	4,000
Meat Market Intervention Fund	6,000
Sundry: wool, skins, honey etc.	375
Total subsidies	10,875
Grand TOTAL	21 415

(1) **Reconditioning** of the Meknès dairy industry, modernisation of dairy co-operatives, technological research, etc...

(2) **Installations** of the intervention organisation (offices, furniture, equipment, animal pens, etc..)

2.5 - Marketing stockbreeding products

a - Milk marketing

The considerable efforts made in respect of dairy cattle stockbreeding, concerning both animal breeding proper and their feeding and particularly in the irrigated areas must be accompanied by rational organisation of milk marketing.

- Collecting centres

In order to provide rational collection circuits, right from the origin of the produce, the State should build collecting centres requiring an initial outlay of some 60,000 DH per centre. These credits can be recovered by a levy of approximately 0.01 dh per litre of milk collected. Management of these centres should as far as possible be the responsibility of producer groups.

- Berkane Dairy Industry

An overall credit has been allocated for the study and possible building of a surplus milk processing factory (cheese, butter, powdered skimmed milk).

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(1) **Refur**bishing the dairy at Meknès, moderniginy the coopérative dairy, risearch etc.

(2) organizing an inspection unit (au offices, furniture, matériel etc)

(3) this investment is credited to the "agricultural support operations".

. Meknès Dairy Industry

The development of milk production in the plains of the Rharb, Meknès and Fez renders the reconditioning of the Meknès dairy factory an urgent necessity

. Inaugurating the Dairy Federation

It appears essential to rationalise and re-equip all the co-operative installations and to assist their grouping into a Dairy Co-operatives' Federation which would be responsible for the operating costs. In view of present difficulties which most milk co-operatives are now experiencing, however, a credit has been allocated under "subsidies" to facilitate the setting up of this Federation.

. Milk Marketing Development Fund

While it appears necessary to increase customs duty on certain dairy products (particularly butter) in order to relieve corresponding home products from artificial competition, fairly extensive investments will be needed to organise milk marketing and to attract a wider and more stable clientele (publicity, market and consumer research, technological research, aid to the Dairy Federation).

b - Meat Marketing

. Prices

A considerable proportion of the country's annual losses through cattle dying and being undernourished should be avoided by means of a number of commercial-type programmes: supporting rates above floor prices, effective use of the rich pasture lands, exporting and importing according to season, freezing and tinning a proportion of surpluses.

It appears to be imperative to set up a specialised organisation with the rôle of an Intervention Fund on the meat market. This organisation will be provided with the necessary financial means.

. The physical aspect

In order to provide municipalities and autonomous centres with slaughterhouses and cold storage facilities the central Administration will subsidise the study and building of each project. The aim of the programme is to provide a slaughter capacity of 11,000 tons with 4 cold-storage chambers.

2.6 - Sundry questions

Stockbreeder groups

To encourage the setting up of these groups is the objectiv of the advisory programme. The granting of certain subsidies at the outset, however, appears to be essential.

(in 1,000 DH)

Stockbreeder groups	TOTAL
Subsidies	500

Animal traction

Subsidies are needed for the purchase of sufficiently powerful draught animals and for the more rational harnessing by farmers.

(in 1,000 DH)

Animal traction	TOTAL
Purchase of animals	225
Harnessings	75
TOTAL subsidies	300

Stockbreeding chart

Stockbreeding policy planning is hindered by inadequate knowledge of the facts of the problem. A chart showing the essential data concerning existing installations and defining the separate stockbreeding areas (predominating species and others, types, numbers, extensive or intensive stockbreeding, average individual yield, annual movements of flocks on the move, additional mountain or plain pasture-lands, normal supply and marketing circuits etc.) will be of great importance. The scale of this map is to be determined. Its accuracy should be at least 1/500,000.

(in 1,000)

Stockbreeding chart	200

Advisory Service Equipment

Audio-visual means of publicity have proved successful in all fields. Equipment appears to be needed to support stockbreeding publicity efforts.

(in 1,000 DH)

Advisory Service equipment	TOTAL
Investment	1,000

Training Courses

Apart from the training of supervisory grades properly so called, which comes under the Directorate of Agricultural Instruction, practical training courses or refresher programmes are needed.

(in 1,000 DH)

Training Courses	TOTAL
Investment	1,000

Summary Table of Stockbreeding Investments

(in 1,000 DH)

Nature of operation	Investments	Subsidies	Total inv & sub	Credit
Health units	11,820	180	12,000	
Increased Feeding Programme	31,100	10,800	41,900	
Genetic improvement	31,630	9,000	40,630	12,490
Stockbreeding buildings		5,735	5,735	8,240
Marketing	10,540	10,875	21,415	3,000
Stockbreeding Co-operatives	-	500	500	
Draught animals	-	300	300	
Stockbreeding chart	200		200	
Advisory Service equipment	1,000	-	1,000	
Training courses		-		
TOTAL................	86,390	37,390	123,600	23,730

D - AGRICULTURAL PRODUCTION SUPPORT SCHEMES

The investment programme of the Ministry of Agriculture and Agrarian Reform can only be fully achieved provided that complementary schemes are effectively carried out.

These schemes concern:

- research
- instruction
- studies
- land conservation and topography
- various other equipment

1 - The Programme of the Directorate of Agricultural Researc

1.1 - Basic programme

In order to achieve progress in agriculture it is not sufficient to develop the countryside, supervise the rural populations and to set up co-operatives. Development should be based on appropriate agricultural techniques. Now Morocco is a country where conditions are particularly unfavourable and where agricultural problems are particularly difficult to resolve.

Development should therefore be based on agronomic research work, directed and effectively adapted to the special conditions of Morocco. Agronomic research is therefore not a luxury for our country but, on the contrary, meets a real deed for agricultural development and it should provide the guidelines for any large-scale advisory and training programme.

Applied research is more often than not a short- or medium-term investigation, the results of which form the basis of the advisory programme. Agronomic research, however, cannot confine itself to such investigations otherwise it would gradually strangle itself. This is why long-term research is essential in order to guide and support short-term studies.

Long-term research will involve:

a - Studies of the natural surroundings

It is obvious that before all else the farmer should have a thorough knowledge of the surroundings in which he is working and where plants are grown and domestic animals reared. For this purpose thorough soil tests, surveys of water, climate, natural vegetation, distribution of forests and pasture-land need to be carried out; they should be completed by the preparation of maps covering the whole of Morocco. Maps are also essential in order to determine crop systems.

b - Research on vegetation

Research concerns hybrid strains and selection of the most adapted and flourishing varieties; it also covers the means of protecting them against their natural enemies.

- Cereals

Corn, maize, sorghum, rice - under dry or irrigated farming: this is a priority sector as the country imports considerable quantities of cereals.

. Horticultural plants and fruit trees, particularly citrus fruits

Market garden products, particularly tomatoes and citrus fruits, are a considerable source of foreign currency revenue. In addition the rational production of tinned vegetables and fruit (asparagus, gherkins, strawberries, apricots etc.), is needed for the use of certain soils and for the canning industry to be extended to export quality products overseas. Morocco also needs to eliminate such costly imports of fruit as apples, pears, plums, etc. Research on citrus fruits, however, will still be given priority among research on fruit trees.

. Textile plants

Improvement in the output of long silk cotton for export and research on the production of short silk cotton for the home industry should be continued.

. Fodder plants

The planned extension of stockbreeding necessitates research on fodder, in both the irrigated and non irrigated regions.

. Oil seed plants

Morocco imports almost 90% of its fats requirements. Considerable efforts should be devoted to determining the species and varieties best able to provide a proportion of Morocco's supplies (sunflower, safflower, olive-tree).

. Sugar plants

(sugar beet and cane). Sugar production requires extensive research on sugar plants.

. Tea plants

The success of the first tea plant experiments carried out in Larache now lead to the necessity of carrying out research into the possibilities of extending production to other regions in Morocco.

c - Animal Breeding Research

This type of research has never been properly undertaken in Morocco but it is essential and urgent to start research on local breeds and their possibilities, on eventual cross-breeding, the use of foreign species and cross-breeds, the rational production of meat, milk, eggs, fleeces, etc. This research should be applied both to improving extensive dry stockbreeding and also intensive irrigated stockbreeding.

d - Preserving and processing agricultural products

To produce is not sufficient, food products should also be preserved (cold-drying, the vacuum system, radiation etc.) and frequently processed to increase their value: bread, biscuits, jam preserves, meat, tinned vegetables and fruits, dairy produce, cheese, oils, etc. The best processing methods should be investigated in order to increase the quality of the products to be processed and preserved.

e - Rational utilisation of available food products

Research should also be applied to the economic use under the best possible conditions for maintaining the health of the population and to obtain the best quality products from the available foodstuffs, their digestive characteristics, their reciprocal share in diets and balanced meals. This research is only at its early stages in Morocco and it is vitally important that it be extended.

f - Organising distribution of the results of agronomic research

Without organised distribution of these results permeating the whole of the agricultural sector, this research will be fruitless and to no purpose. This is why it is essential to publicise and generalise these results as rapidly and as effectively as possible, making them available to all categories of users.

Distribution of the results is ensured in the rural sector by pilot stations undertaking trials. The basic facts of the most up-to-date agricultural developments should also be published in Arabic in the form of illustrated leaflets.

Talks and conferences (where possible illustrated by films) form the essential link between research and its application. Finally rather more technical and scientific publications such as El Awamia, research specifications and summaries should provide the means for distributing among scientific and technical circles, both in Morocco and throughout the world, the results obtained.

The agricultural research investment programme amounts to 30 million dirhams and can be broken down as follows:

(in 1,000 DH)

Consumer services	Investments
Experimental stations	11,000
Protection of Vegetation Department	2,295
Horticultural Department	100
Regional centres	100
Adaptation Trials	570
Directorate for the Control and Production of Original Stock Seeds	+ 640
Documentation for distribution, general and specialised studies	7,925
Scientific Directorate	7,305
Vehicles and maintenance	65
TOTAL	30,000

1.2. - Locust and Bird Control Programme

The period of reprieve from the locust invasions appears to be drawing to an end; there are two factors which seem to confirm this. One is the cyclic nature of the invasions Morocco has suffered for several decades and the second is the recent signs from various sources which indicate that the migratory locust is beginning to reproduce rapidly in several areas.

Recent investigations south of the Oued Draa have also proved the existence of as yet scattered swarms of the migratory locust.

To control any possible invasion by swarms of such locusts and to protect the rural populations against this scourge extensive credits have been allocated for locust control. These credits are incorporated under the Plan on an exceptional basis and their effective utilisation will be governed by the means employed to control this national scourge.

Credits allocated for locust control amount to 77 million dirhams over the five year period and are broken down as follows:

(1,000 DH)

	Investment
- Building development, maintenance	950
- Purchase, hire and renewalaof equipment	27,050
- Operation of equipment	8,950
- Products employed	28,117
- Transport and displacement expenses	5,241
- Documentation and postal charges	340
- Current expenditure and seasonal staff	6,352
TOTAL	77,000

2 - Study Programme

This heading does not include the studies in respect of which credits have already been allocated under the various programmes (Regional Offices, Management, etc.).

2.1. -Existing studies

At present there exists a considerable number of documents, monograph studies of varying age and worth, dispersed among the archives of the various departments of the Ministry of Agriculture. A list should be made of these and they should be coordinated, filed and explöited on a rational basis. Among these studies certain are of capital importance such as those concerning the water engineering development over entire regions (lower Moulouya, Gharb, Haouz, Béni-Moussa West, Loukkos, Tafilalet).

2.2. - New Studies

The distribution of the Oum-Er-R'bia waters between industrial and domestic consumers and for irrigation purposes is being studied. In order to carry out this investigation effectively a number of studies of a regional nature need to be co-ordinated.

- tapping the Haouz underground water;
- further studies concerning the Lower Moulouya;
- study of the best possible utilisation of the additional water deriving from the raising of the El Kansera Dam.
- further study into the Loukkos project in respect of water engineering works;
- study of the Sous Massa irrigation project;
- further study of the utilisation of the Maidir and the Rheris water;
- continuation of the Draa development studies;

Feasibility studies for setting up small- and medium-scale water engineering works outside the Regional Offices;

- Survey of irrigable land;
- Summary study of equipment and development schemes in order to determine priorities;
- Detailed studies of the regions selected (including the plain of the Western Riff basin), involving the second stage of the DERRO Project.

Further studies into irrigation from hillside lakes in the Tangiers area.

- Study of the hill regions

Little study has yet been made of the hill regions. Based on the experience of investigations in the Western Riff the following studies will probably have to be carried out:

- Preparation of a general chart of erosion;
- Degree of slopes;
- Existing vegetation cover,
- Rainfall;
- Study of the profitability of erosion control;
- Determining priority regions;
- Study of techniques of erosion control;
- Study of regulations, legislation and the socio-economic framework;
- study of specific regional projects.

- Study of the pasture-lands

Study of the improved utilisation by breeders of pasture-lands and State forests:

- The High Eastern Plateaux;
- The State forests;
- The hillside grazing lands.

- Study of the bog areas

In the field of dry farming, projects will necessarily concern certain productions the economic interest of which will be investigated product by product.

Projects will be on a regional basis and will be preceded by investigations into regional characteristics.

- Economic studies

Evaluation of current projects.

Within the framework of each project assessments should frequently be made into the effective viability. These investigations may result in a project being reconsidered.

- Investigation by product

The principal agricultural and animal products should be the subject of continuous investigations into the progress of production, sales on home and overseas markets, including self consumption, and into home and overseas market price trends.

Medium- and long-term projections, made on the basis of expected trends of world rates, should also be permanently kept up-to-date in order to control short-, medium- and long-term agricultural production policies and to achieve export and output targets.

3.3. - Investments

Overall expenditure on surveys is high. The majority of studies are incorporated under the appropriate headings. The figure of 24.71 million dirhams mentioned here is in addition to the expenditure affected under a given project. This expenditure concerns studies made at central level.

(1,000 DH)

General Studies (not mentioned in the previous chapters)	TOTAL
Liquidation of former convention	11,360
Outside staff	1,750
Sebou studies (1)	3,500
Comparative study of the Oum-Er-R'bia (1)	3,000
Investigation into techniques	1,250
Socio-economic studies	3,000
Administrative facilities	250
Documentation	600
TOTAL	24,710

3 - Land conservancy and Topographical Service

Land Conservancy and the Topographical Service play a vital part in the realisation of the five year programme. In fact, no agricultural development project or equipment can be conceived without the prior topographical infra-structure: surveying, levelling, maps and plans on different scales, aerial photography. In addition no land utilisation or water engineering equipment can be rationally planned unless preceded by a regrouping operation. The Land and Topographical Services should be equipped to meet the needs of development organisations and particularly of regrouping schemes which cover 116,550 hectares of irrigation farming and 13,000 hectares under dry farming. The Directorate of Land Conservancy and the Topographical Service is also responsible for verifying the preparation of distribution lists and plans in the sectors being regrouped.

Land registration also ensures the safeguarding of farmers' property by registration. The farmer is protected against all claims and disputes once his title to the property is established. Possessed of this title he can claim aid from State organisations or credit from private banks.

The programme of the Directorate of Land Conservancy and Topographical Service is also concerned with the following operations:

- Extension and revision of the basic surveying system and levelling system throughout the entire Kingdom;

- Drawing up a National Survey.

The Topographical Service will continue its work on the National Survey. 670,000 hectares will be dealt with in 28 Communes:

- Group registration of 75,000 hectares

- Drawing up and revision of the map of Morocco on several scales (100,000°, 50,000° and 20,000° or 10,000° for towns);

- surveys of community or State property (private or State forests 100,000 - 150,000 hectares will be deal with every year;

- Verification of certain topographical work undertaken on behalf of other administrations and control of private topographical offices and consultants accredited by the State.

- Centralisation and filing of aerial photographs taken of the whole territory of the Kingdom. The national photographic library will be responsible for this work.

The investment planned over the five year period will amount to 39.2 million dirhams.

4 - Sundry equipment

4.1. - Suppression of fraud

This department will be responsible for investigating cases of fraud in sales of goods and falsification of foodstuffs or agricultural products. Investments amounting to some 0.2 million dirhams will be allocated to this service to provide new inspectorates at Kénitra, Ouarzazate and Khouribga and to transform the sub-inspectorates at Béni-Mellal and Agadir into inspectorates.

4.2. - Household waste processing factories

The planned investment of 4.5 million dirhams represents the share of the Ministry of Agriculture and Agrarian Reform in the cost of studies and work involving seven factories. The remainder of the expenditure is chargeable to the municipal and autonomous centre budgets.

4.3. - Cold Storage Industries

The investment of 3.46 million dirhams involves the extension of two depots. The Ministry of Agriculture is entirely responsible for these investments.

5 - Agricultural training and senior grades

5.1 - General questions

Achievement of the five year agricultural programme necessitates large numbers of senior grades who should receive training suited to the tasks for which they will be responsible. Purely theoretical training is inadequate for the rôle of an agricultural development agent.

The agricultural training system hitherto did not provide the country with adequate senior grades either in numbers or in quality. The system lacked co-ordination among various bodies responsible for the same objective. The five year period will see the unification of the agricultural training system. As will be seen in the chapter concerning the Training of Senior Grades, the Technical Agricultural Training Certificate (C.E.T.A.) and the Agricultural Technician's Diploma (D.T.A.) will be abolished. Present courses will of course continue their studies until the normal end of the training period. Places for these graduates will also be ensured by their integration into the normal agricultural training circuits.

Basic instruction given in the country will be reviewed and adapted to rural conditions; rural training classes will be continued and training results will be distributed throughout the country. This rural training should in no way force those more suited to other studies to continue living in the country.

5.2. - Investment planned for agricultural training

This amounts to 13 million dirhams over the five year period. This investment is mentioned here as a reminder and is shown in detail under the heading: "Training of Senior Grades".

5.3. - Senior grades - Balance of resources and needs

An agricultural policy is defined by its objectives and the means adopted for its implementation; together with the socio-economic and organic framework the financial means and senior grades resources form the corner-stone of a co-ordinated agricultural policy.

The lack of technicians has in the past frequently been an obstacle to the realisation of programmes; it was therefore considered necessary to draw an exact balance between needs and resources of senior grades over the five years to come and to take account of this balance in defining the agricultural training policies to be adopted.

The increase in the needs and resources of new senior grades over the five year period 1968-1972 were assessed as follows:

- Estimates of resources were drawn up on the basis of the numbers undergoing training, anticipated numbers in future years and probable wastage.

- Estimates of needs were reviewed on the basis of basic data (present availabilities and stated needs) in relation to the investment programmes concerning the desired structures.

The main results are shown below:

General summary of needs and resources

	1968	1969	1970	1971	1972	TOTAL
State engineers						
Resources	20	30	37	35	43	165
Needs	104	75	43	40	38	300
Difference between resources and needs....................	-84	-45	-6	-5	+5	-135
Site engineers						
Resources	17	32	39	51	57	196
Needs	134	94	76	64	61	431
Difference resources/needs..	-117	-62	-37	-13	-4	-233

Technical assistants						
Resources	307	328	240	315	350	1,540
Needs	399	312	258	265	284	1,518
Difference resources/needs..	-92	+16	-18	+50	+34	+22

Needs are very high during the first year of the Plan; this is explained by the planning system adopted by the various agricultural intervention services. Morocco will therefore need foreign technical aid although only to a limited extent; approximately 135 foreign experts will be recruited at design engineer level over the five year period.

There is still a considerable deficit in site engineers. The only possible solution is to increase the capacity of Morocco's existing training schools. This step, however, will only start showing results in 1972 and the following years. A system of priority will therefore be prepared among the various Directorates and Offices so that the employment of the newly trained personnel best meets the needs of sectors where the lack of senior grades is the greatest. Foreign technical aid, however, will be needed, as in the case of design engineers, to make up the deficit.

The detailed results are shown below;

State engineers

	1968	1969	1970	1971	1972	TOTAL
Agricultural Training	26	20	1	-	-	47
D.E.A.E.J.	5	4	--	-	-	9
Stockbreeding	17	9	9	8	7	50
D.R.A.	14	9	3	2	2	30
C.F.S.T. (1)	6	5	5	4	2	22
Waterways and Forests	3	2	2	3	5	15
D.M.V.						
Central Directorate	8	5	4	4	4	25
Regional Offices	14	8	6	5	4	37
SP and CT	3	3	3	3	3	15
O.C.I.C.	-	1	-	1	-	2
C.N.C.A.	1	1	1	1	1	5
B.V.A.	-	-	-	-	-	-
Renewal	7	8	9	9	10	43
Needs, including renewal	104	75	43	40	38	300

(1) Land tenure conservators are included under this heading.

Site engineers

	1968	1969	1970	1971	1972	TOTAL
Agricultural Training	21	14	4	-	-	39
D.E.A.E.J.	5	6	4	-	-	15
Stockbreeding	3	2	2	2	1	10
D.R.A.	10	6	2	1	1	20
C.F.S.T. (1)	17	13	14	10	8	62
Waterways and Forests	12	8	9	10	11	50
D.M.V.						
Central Directorate	11	7	6	6	6	36
Regional Offices	36	19	15	14	11	95
SP and CT	8	6	7	7	8	36
C.N.C.A.	4	4	4	4	4	20
B.V.A.	-	-	-	-	-	-
O.C.I.C.	1	1	-	-	-	2
Renewel	6	8	9	10	11	44
Needs, including renewal	134	94	76	64	61	429

(1) Land tenure controllers are included under this heading.

Technical assistants

	1968	1969	1970	1971	1972	TOTAL
Agricultural Training	3	9	3	2	1	18
D.E.A.E.J.	2	4	4	-	-	10
Stockbreeding	72	36	34	31	27	200
D.R.A.	32	19	8	4	4	67
C.F.S.T.	28	22	22	17	13	102
Waterways and Forests	34	21	25	28	32	140
D.M.V.						
Central Directorate	9	5	5	4	4	27
Regional Offices	87	46	37	33	40	243
SP and CT	74	88	53	75	90	380
O.C.I.C.	3	3	3	3	1	13
C.N.C.A.	24	24	24	24	24	120
B.V.A.	1	1	1	1	1	5
Renewal	30	34	39	43	47	193
Needs, including renewal	399	312	258	265	284	1,518

Techni-al agents

	1968	1969	1970	1971	1972	TOTAL
D.E.A.E.J.	-	2	3	-	-	5
Stockbreeding	11	6	6	5	4	32
D.R.A.	2	2	1	1	-	6
C.F.S.T.	42	32	32	24	19	149
Waterways and Forests	44	28	34	37	42	185
D.M.V.						
Central Directorate	3	1	1	1	1	7
Regional Offices	38	20	16	14	12	100
SP and CT	157	101	112	118	134	622
O.C.I.C.	-	-	-	-	-	-
C.N.C.A.	1	1	1	1	1	5
B.V.A.	-	-	-	-	-	-
Renewal	32	36	41	45	49	203
Needs, including renewal	330	229	247	246	262	1,314

SUMMARY TABLE OF INVESTMENTS IN AGRICULTURAL PRODUCTION SUPPORT SCHEMES

(in 1,000 DH)

1 - **Agricultural Research**	
Experimental stations	11,000
Protection of vegetation	2,295
Horitculture	100
Regional centres	100
Suitability tests	570
Control and production of original stock seeds	640
Scientific Directorate	7,305
Documentation and distribution	7,925
Vehicles	65
TOTAL...............	30,000
Locust Control	
- Building, development, maintenance	950
- Purchase, hire, renewal of equipment	27,050
- Operation of equipment	8,950
- Products employed	28,117
- Transport and displacement costs	5,241
- Documentation, Postal charges	340
- Current expenditure and seasonal staff	6,352
TOTAL..............	77,000
2 - **Studies**	
- Liquidation of former convention	11,360
- Sebou Study	3,500
- Oum-Er-R'bia Study	3,000
- Technical Studies	1,250
- Socio-economic Studies	3,000
- Outside staff	1,750
- Administrative facilities	250
- Documentation	600
TOTAL..............	24,710

(cont..)

3 - Land Conservancy	
- Construction of land units	2,530
- Levelling work, triangulation	2,750
- Drawing up and revision of maps	8,800
- Main regions.........) Studies and work.....)	11,620
- National Survey	13,500
TOTAL	39,200
4 - Other Equipment	
- Suppression of fraud	227
- Household waste factories	5,193
- Cold storage industry	3,200
TOTAL	8,620
GRAND TOTAL	179,530

IV - THE MEANS AND MEASURES

Such a programme is only possible provided the State adopts the necessary measures for it to be carried out.

The present distribution of property and the human and institutional aspects form obstacles to the intensification and optimum utilisation by farmers of the considerable amount of investment made by the State.

In conjunction, therefore, with its expenditure programme, the State should ensure that the socio-economic framework of the rural populations and the State intervention services are in a position to make the best possible use of the financial investments made.

1. - The socio-economic framework

1.1. - The need for viable agricultural holdings

a) Land reform

Modification of the land tenure structures throughout the country can only be on a long-term basis under the twofold impetus of the increase in population and technical progress. Nevertheless appropriate measures can accelerate this gradual change. The Five Year Plan proposes in this respect:

i) to distribute the joint agrarian reform fund land.

This land will be increased by the full recovery of colonial lands. It will also include other State and community land, guich and land reclaimed on the basis of the incremental value in regions endowed with water-engineering works. This joint fund will be split into viable agricultural holdings which will benefit from the general development schemes under the five year programme. The optimum size of holdings will be determined according to the region, the farming methods and the type of land.

This land will be distributed direct to the farmer with priority being given to those on the spot and subject to directives being followed, including the obligation to develop the holding. Non-observance of these directives will be followed by effective expulsion of the contravening farmer.

One of the important clauses of these directives is acceptance by the farmer to join co-operatives or, in certain cases where the crops grown demand it, to production units,

Farming groups are necessary for two reasons:

- they can deal direct with the State intervention services and form an intermediary for advisory schemes between the advisor and the peasant;
- they offer the peasants themselves a number of advantages:
- obtaining supplies needed for production at better prices;

- possibility of reduced cost prices for farming equipment and more effective use of this equipment;

- possibility for farmers to keep the middle-man's profit.

Farming groups should therefore be encouraged by all the means open to the State (organisation, credit, etc.).

ii) to adopt measures to encourage large landowners to exploit their land.

The land to be distributed represents less than one fifth of the amount of land suited for cultivation. The large landowners who own the rest should be encouraged to divest themselves of some of their land either by selling it, leasing it or forming a co-operative with farmers. The measures likely to encourage this programme are as follows:

- the State claiming the incremental value resulting from developments made by the State.

Where this takes the form of reclaiming land, the country's land-holdings in the joint Agrarian Reform Fund will be increased accordingly.

- application of fiscal measures obliging the landowner to exploit intensively his available means of production (tax on theoretical income, water rates:(these are studied below under another heading);

iii) to plan a more moderate drift from the land.

The distribution of State land, however, will not suffice to resolve the land problem. Delicate questions of a social and political nature will still have to be resolved before viable agricultural holdings can be set up. In fact, even supposing that all land suited for cultivation were to be farmed in small-holdings, the total area available could not provide each family with a viable holding.

There are approximately 8 million hectares available; however if the land which is subject to erosion and which therefore cannot be farmed and the already very scarce fallow-land, which can only be reduced further in those parts of the country which have the worst weather conditions, are deducted from this figure the remaining area is no more than 5 million hectares at the most, 1 million of which are irrigable. Compared with the land available rural households number 1,150,000, excluding the 100,000 households deriving their living solely from stockbreeding.

In twenty years the number of households will rise to 1,800,00 given a moderate increase in the drift from the land. Land availability per rural household would be 6.6 hectares compared with 7 at present (and under the assumption that one million hectares will be irrigated and one million hectares planted).

This analysis shows that the land available per household can only be maintained even at its present reduced scale if the towns continue to absorb considerable numbers from the countrysi This means that agricultural land can only be farmed under conditions favourable to improved output (viable agricultural holdings) if industry and the tertiary sector absorb the surplus labour from the countryside.

b) Drawing up a standard farm-rental contract:

The State should also take action on the present system of associations. The landless peasant or those with inadequate holdings are caught up in a system of various types of associati which certainly contribute to resolving some problems which confront farmers who permanently lack the necessary equipment (teams, tools, seeds etc.), but which in no way safeguard them against abuses by their partners and do not encourage investment (increasing funds, plantations, etc.).

A standard contract would give the farmer or share-farmer the right to:

- a more permanent and stable tenure of the land;
- benefit from the fruits of his labours;
- indemnity for investments made by him in the case of sudden departure or termination of the contract.

The owner will be entitled to cancel any contract binding him to the farmer if the latter does not fulfill his obligations to exploit the land effectively by preserving and improving the land's resources.

c) Reform of the laws of inheritance:

The frequent division of country property and its breaking up is the result of the laws of inheritance.

Far-reaching reforms should be made in this respect:

- forbidding division of land into uneconomic plots;
- right of pre-emption for a single heir in cases where distribution would render the holding uneconomic, this sole heir paying his co-heirs their share either in money or kind..
- State aid in the form of credits enabling the heir to reimburse his co-heirs and to develop his property.

d) Reform of the "adoul" system:

In order to claim their rights to fixed assets (moulkia, inheritances, other transactions) peasant farms need recourse to the adouls.

The adoul legislation, should be modified and the adouls replaced by a system of notaries with sufficient legal knowledge and subject to stringent rules.

1.2. - Providing agriculture with the necessary means for intensification

While it is essential to encourage farmers to increase their production, the State should also ensure that they possess the means to carry out this intensification. These means are mainly:

- information
- access to agricultural credit
- the possibility of obtaining the necessary supplies at the right time and at favourable prices.

a) information

By information is meant publicising efficient and economic production methods; this presupposes first that these methods have been determined (this is the rôle of agricultural research) and secondly that farmers are advised of these by skilled and efficient staff.

- The rôle of agricultural research and experimentation

The essential rôle of agricultural research and experimentation should be to study the feasibility and conditions of certain productions (optimal quantity of seeds, water, fertiliser, parasite control, etc.), types of crop or varieties which should be economically extended or introduced in Morocco: agricultural research, therefore, should work to a large extent at the request of the land development organisations or private co-operatives against payment of a fee: this would be the best guarantee of the successful outcome of the research.

Agricultural research should also continue work on improving equipment and farming implements best suited to the most effective use of available labour.

Greater attention should therefore be paid to applied research and in certain cases to envisage agricultural research as a service particularly to meet the needs of its users.

- Advisory Service

- recruitment and training of advisors.

The main obstacle to the generalisation and effectiveness of an advisory service lies in the inadequate quality and numbers of advisors.

There are far too few trained senior advisors available at present both in Morocco and abroad and they receive no training suitable for the tasks for which they are responsible: they are frequently cut of from the farming community whose methods and customs are almost unknown to them and there is little communication with these communities.

A corps of specialised advisors should be trained for the sole purpose of instructing peasant farmers. Furthermore, in order to encourage efficiency among these agents, they should be given a financial interest in any improved production achieved in the areas for which they are responsible; they should be also left for as long as possible in these areas as human contacts and awareness of the specific problems of the areas concerned constitue the major attributes of success for the agent.

. Pilot farms

While information may be passed on by direct contact with the peasant farmer and by various audio-visual means (films, posters, etc.) another method which should not be overlooked is that of example.

In all areas which, for agricultural purposes, are identical, pilot farms should be set up and these could be selected from among the winners of agricultural contests.

Apart from their function as an example, these farms would serve as a basis for determining in each region the potential income from the land on which taxation should be based.

These farms would be advised by the development organisations or, where necessary, by the agricultural research services. Tests carried out based on this advice should always be at the farmers' request and at his responsibility, to ensure that the pilot farms retain their identical character similar in all respects except in that of progress, to other farms in the area. Morocco's best farmers, therefore, would become advisors without leaving their holdings.

. Training of the young

In addition to the instruction given to adults, the training of children should not be overlooked; these are the ones who will benefit from the major development work today. Basic instruction given in the country should therefore be replanned on new lines: a firm technical training, an elementary knowledge of economics, the law of contracts and, generally speaking, all aspects essential for managing agricultural holdings should form the basis of the instruction given to the farmers of the future.

Such a replanning should not, however "condemn" to agriculture those whose talents lie in other directions if all those suited to further technical studies or higher studies can be given grants and are streamed towards those establishments most suited to their aptitudes.

- Terms under which the peasant accepts the methods advised.

Apart from technical training properly so called, the aim of the advisory programme is to encourage the peasant to change the methods which he uses to farm his holding: he should be made aware that his holding forms part of a unit and of the vital rôle his farm plays in the well-being of this unit; he should appreciate the virtues of saving and investment, of maintenance and improvement of his land. This transformation in farming methods is only possible if, together with the advisory programme, steps are taken both to provide the peasant with the necessary means of production and to ensure a market for his output.

In this respect agricultural groupings (pre-cooperatives or, even better, co-operatives) should play an important rôle:

b) agricultural credit

The lack of savings and even more frequently the lack of funds are the greatest obstacles to intensification, which demands either investments (plantations, implements) or merely advances for the land (fertilisers, top grade seeds). The distribution of credit in all its forms (for seasons or medium- and long-term) is therefore one of the first necessities for intensification.

The present system, based on a National Fund, Regional Funds, local Funds and agricultural credit Societies, comes up against a number of difficulties which restrict its scope of action: agricultural credits in fact scarcely involve a tenth of peasant farmers.

Total credits allocated amount to approximately 170 million DH broken down as follows:

- short-term : 84%
- long-term : 16%

The volume of credits distributed is very low in relation to the value of agricultural production (5%). This figure decreases still further if account is taken of the fact that 65% of the credits allocated by the National Fund concerns reclaimed land or financing marketing.

Furthermore, the farmers least well placed to obtain credit are in the sector where agricultural taxation is the lowest (potential income between 1,400 DH and 6,000 DH).

Among the difficulties militating against a general extension of agricultural credit are the following:

- the problem of guarantees;
- the administrative and staff problems; this is a delicate question as it will be impossible for many years to come to recruit sufficient numbers of qualified personnel;
- the planning of rates of interest to enable increased expenses from these credits to be covered;
- finally, the resources available in the face of an ever increasing demand will probably be very inadequate over the next few years.

The reforms to be instituted during the Five Year Plan can be grouped under six headings:

- first, the economic level below which credits are unlikely to contribute to development should be determined (this concerns principally the very small holdings) and secondly the level above which farms can obtain their own means of financing;

- the second reform would extend the scope of guarantees: the joint and several caution which should be applied more effectively, provision of a warranty on dead livestock and other practical guarantees and also life insurance;

- the third measure would gradually abolish uneconomic agricultural sectors, reserving all farm credits for farmers in the so-called "social" sector;

- the fourth reform would enable credit to be liberalised in favour of the larger holdings, encouraging recourse to banks.

- the fifth measure would simplify procedures for granting credit and the permit formality would be abolished; this formaility was indeed simplified in 1964 but it is still in force.

- incentivation to set up mutual funds which would reduce operating costs and enable credit to be almost completely recovered.

c) Providing farmers with the necessary supplies at the right time and at favourable prices

The possibility of obtaining supplies at the opportune moment and at reasonable prices of seeds, plants, fertilisers, contract work (farming systems and processes) is obviously one of the main conditions for intensification of production.

In the long term, supplies or work which are outside the scope of individual holdings should be handled by farming groups and these, as has been stated several times already, should be encouraged.

In the absence of these groupings or where the private sector should be incapable or be monopolised, the development organisations should be in a position to offer these supplies to all farmers wishing to obtain them.

1) mechanical work:

Morocco's climate is characterised by insufficient and irregular rainfall. The result of this for cereal production is the predominance of "Bekri"(1) compared with Mazouzi (2) in bog areas and an aggravation of production difficulties. In fact autumn rains are often late and sowing has to be completed before the beginning of January which leaves very little time for ploughing. The soil is very hard and compact after the long dry months and the trampling of the herds; special dry farming techniques therefore have been used, using powerful farm machinery. Or else ploughing should be done just after the harvest, ploughing in the straw which forms humus and conditions the soil to receive and absorb the first rains and, in certain areas, enables ploughing to be carried out by the draught animals.

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(1) Bekri - autumn crop
(2) Mazouzi - Spring crop

Where mechanical ploughing cannot be avoided, the State should either encourage the private sector to buy machinery by means of subsidies and credits, or undertake this work itself as is the present case, or again to encourage private groupings to purchase the necessary mechanical equipment.

The best solution is undoubtedly the latter; while gradually instituting this system, however, the State will continue its traditional practice of providing mechanical work through its agricultural intervention organisations; the prices applicable, however, will be reviewed so that they are not less than the cost to private individuals as this would discourage the latter from assuming responsibility for this work.

ii) original stock seeds

Increased productivity depends on the use of original stock seeds. The State should encourage production of a sufficient quantity of such seeds by the following means:

- original stock seeds should be bought from the producer at the market price plus a premium which takes into account the high cost of these seeds. A premium of some 10% compared with the price of consumer cereals would encourage farmers to produce these seeds.

- the State will encourage importation of high yield varieties which have already been tested in Morocco and found to have produced good results.

Once the production and importation of original stock seeds is ensured they should then be made available at the appropriate time to peasants and at reasonable prices by means of an effective system of credits.

iii) fertilisers:

A combination of summer ploughing, original stock seeds and fertilisers is the best method to ensure increased output over the considerable areas devoted each year to annual cultivations. The State will subsidise fertilisers used in integrated operations or, in certain cases , those used individually by farmers.

1.3. - Measures to induce farmers to make the most effective use of the facilities available

Providing farmers with the facilities to increase their output is often not enough to induce them to make use of them; an anticipated profit will only become really attractive if the farmer is assured of remunerative outlets: on the other hand it is essential to use more or less obligatory methods, coming under what is known as the development obligation, in order to accelerate the transformation of farming methods.

a) the existence of remunerative outlets

At present, apart from contract farming, the farmer is completely at the mercy of market hazards; this is usually the local market (souk), highly sensitive to fluctuations in both supply and demand. The farmer should be advised of the most remunerative crops and should be so placed as to ensure that he has a fair reward for his efforts.

In a free economy, however, prices are governed as far as possible by supply and demand. The rôle of the State therefore should be:

- to prepare seasonal and long-term price forecasts in order best to control production by all available means (credits, providing production facilities, including water etc...);
- to keep the public fully informed of these long-term projections;
- to ensure that supply and demand are balanced at the lowest cost.

To this end the State should eliminate monopolies, both private and State, private monopoly tending to retain an excessive margin of profit to the detriment of producers or consumers and State monopoly generally not exercising sufficient control over costs.

The means should therefore be examined for bringing the private sector back into State monopolies (export and import marketing, sugar and cotton industries, transport, etc...) and, conversely, to set up a State sector or encourage the setting up of a co-operative sector in all branches where commerce is more or less controlled by a private monopoly or agreement (cereal, meat and oil markets) and where private initiative is inadequate.

The State should therefore continually make sure that the collection, storage, processing or transformation of productions is equal to the productions themselves thus avoiding seasonal variations in price prejudicial either to producers or consumers. Organisation of these various factors contributes in fact to supply and demand being met more effectively both in terms of space and time.

The aim to reduce marketing costs and remunerate the producer as well as possible presupposes that all the functions complementary to production be assumed by the producers themselves or, even better, by producer groupings. These groupings, particularly co-operatives, should be encouraged by the State, if necessary by temporary assistance (for example, co-operative oil works and dairy industries, possibly cotton ginning and sugar works) preferably within the framework of the Dahir of 1935 which leaves the co-operatives with full responsibility for management.

While encouraging the producer groupings to assume the various marketing functions, the State will continue to operate and encourage farming contracts guaranteeing the producer a market and a price and also frequently providing him with the necessary advances neded for production.

In certain cases seasonal variations will necessitate the setting up of incentivation and compensation funds (meat market intervention fund, milk production support fund, cotton equalisation fund, etc..).

- finally to ensure that home prices accord with world rates: autarchy in fact is just as prejudicial to the nation as self-supplying and self-consumption at farm level. Recourse to overseas markets is necessary as Morocco, even if it wishes, cannot produce all its needs; Morocco, however, because of its natural economic and social conditions, is in a position to offer overseas markets certain much appreciated products which find no buyers at remunerative prices on the home market.

In order therefore to direct production in accordance with the country's interests the State should avoid both permanent maintenance of prices and permanent restrictions on exports and imports.

The marketing of Morocco's principal product can be improved by the following measures during the Five Year Plan.

Citrus Fruits: encouraging the setting up or expansion of deep-frozen juice concentrate industries in conjunction with deep-frozen dehydrated vegetables and the improved use of by-products.

Other fruits: expanding cold storage depots or the deep-freezing Industry (strawberries).

Olives: expanding exports of tinned olives and quality olive oil and setting up three or four oil co-operatives.

Vines: negotiations with the European Economic Committee to obtain common external tariff markets developing a grape juice industry and production of quality raisins.

Main cereals: intervention by the O.C.I.C in the Souks to stabilise prices in the traditional farming areas and construction of Souk silos managed by the co-operatives and the SOCAPs.

Meat: erection of slaughter-houses, setting up an intervention organisation to stabilise rates, meat refrigeration and facilities for exporting at certain periods.

Dairy products: offering the consumer products both lower in cost and adapted to his tastes (leben, smen, zebda, cheese) raising circuit productivity and measures in favour of co-operative groupings.

Cotton: experimenting with new varieties, setting up agricultural research stations, adjusting prices of existing varieties in relation to current market trends, setting up an equilisation fund, effective participation by farmers in COMAPRA.

b) measures incorporated under the "development obligation"

Large-scale water engineering investments (dams, canals, etc. have been made in the irrigated areas for the purpose of developi complete regions. The aim of developing the national agricultur output to the maximum necessitates the most complete and rapid use possible being made of this development; the internal development of holdings, however, has often lagged far behind that of the external equipment. Added to this delay is the inevitable period elapsing between complete development and optimum exploitation.

This situation cannot continue without seriously prejudicing the general profitability of all development work undertaken for the benefit of farmers.

In the bog areas the distribution of land from the Common Agrarian Reform Fund should increase the numbers of viable holdin thereby encouraging intensification and improving the standard of living of the beneficiaries.

This effort by the State in favour of the rural population, however, will only bear fruit if the institutional framework is in a position to induce the farmer to make the best use of the facilities placed at his disposal.

The measures to be adopted to this end will be designed rather to encourage than to oblige and, except in certain specifi cases, direct intervention will give way to indirect measures such as the fiscal and financial policies.

1) Fiscal reform

Taxation should not only be a means to ensure equitable distribution of the public charge but also be based on and calculated to encourage the taxpayer to act in the interests of the country.

Abolishing the tertib and replacing it by a tax based on potential income is thus a considerable step forward in the use of taxation as a measure to encourage increased production.

Agricultural taxation, however, is at present calculated on the basis of the average production over the past ten years as recorded by the tertib. This system of assessment should be abandoned and replaced by another method more in accordance with the spirit of the law.

Furthermore, the 1961 regulations bringing in agricultural taxation should be amended as follows:

- in order to ensure a more equitable distribution of taxation charges and to encourage the modification of land tenure structures, the progressive nature of the tax should be increased and the basic abatement raised.

. to encourage plantations, the separate taxation of trees should be abolished with the potential income per hectare being assessed whatever type of cultivation is practiced.

. to encourage the development of infertile land and for extensive holdings to become intensive, the distinction between the "traditional sector" and the "modern sector" will be abolished, in respect of taxation on potential income which is designed to encourage farmers, whoever they are, to achieve maximum intensification with the best facilities and methods, is meaningless.

Abolishing this distinction should not be taken to be an encouragement for mechanisation, which frequently characterises the so called "modern" sector but rather an encouragement to increase production which is not necessarily synonymous with the term "modern" any more than "traditional" is the synonym for "extensive".

. to avoid over-grazing and encourage the utilisation of hillside land:

- grazing land will be taken into account in calculating the tax; this will have the effect of encouraging the replanning of grazing land and the planting of slopes;
- plantations on hillside land will be exempt from tax or even subsidised, at least during the period when the plantations involve a reduction in the farmers' income.
- a real tax will be imposed on cattle, the rate of which will be calculated in such a way as to penalise goats, to encourage the replacement of horses by cattle and, generally speaking, to direct stockbreeding towards the most useful species.

. to encourage animal traction a real tax on heavy equipment will be combined with a real tax on cattle. Customs duties on farming equipment cannot exceed certain limits because of international agreements. The fiscal policy should therefore complement the customs policy to discourage the use of certain agricultural machinery, and, by contrast, encourage animal traction particularly draught cattle. Payment of annual duty on certain heavy farming equipment will encourage a better and limited use of this: this duty will decrease in relation to the age of the equipment which will thus encourage better maintenance.

2) charge for irrigation water

The aim of this measure is to achieve maximum use of irrigation water and to amortise investments made in supplying water to holdings. The theoretical main income of the Regional Development Offices is the rental for irrigation water. At present this bears no relation to the cost of the work and furthermore it is not always levied; this situation involves a double loss:

- water is not always used rationally
- the State cannot amortise investments made for irrigation.

The price for water should be calculated on the basis of all the factors involved in its cost, from the collection and regularisation of the water to its distribution to farmers.

Part of the cost should be borne by the electricity authorities and the industrial or domestic consumer, the remainder being chargeable to the farmers and other economic agents (merchants, transporters, industrialists) benefitting indirectly from the increased output derived from irrigation.

Calculation of the price of water should be made on a regional basis. The State will set up an equalisation fund to ensure a certain inter-regional redistribution of income in respect of which a regional balancing policy will be adopted.

The development Offices will be responsible for invoicing water even to those farmers who have the water but make no use of it. Payment can be collected by the tax collectors. The farmer will therefore be induced to make proper use of water or to associate with the more enterprising peasant.

Implementation of these measures will be gradual, the object of this new system of charging for irrigation water being to induce farmers to increase the output of their holdings as much as possible.

3) Water rights

In conjunction with these water charges the legal framework governing water should be revised as it is ill suited to a rational use of the water resources. The private appropriation of water involves its sale and purchase separate from the land; this is particularly the case in the South.

The State will take up all water rights by means of an indemnity assessed for each region. This measure forms an introduction to the application of the above measures.

4) Internal development obligation of farm holdings

The law obliges beneficiaries of redistributed land to develop their land. By contrast, the State is not in a position in the irrigated areas to carry out internal development without the prior agreement of the owner. The Regional Development Offices should be able in law and in the general interest to intervene inside properties, preferably with the agreement of the party concerned, in order to carry out certain work (drainage, clearing, levelling etc.) necessary for the optimum development of the holding. This intervention should not encourage peasants to make use of State aid; the cost should therefore to a large extent be borne by the owner who could repay it by means of annual payment sufficiently flexible so as not to overburden his medium term income.

5) observance of cultivation plans

The general study preceding the water engineering development of an agricultural area suggests a cultivation plan which is a function of a number of natural data (type of soil, its suitability for irrigation, it agricultural adaptability, etc..).

This study, carried out with the most modern research facilities, enables the optimum utilisation of the land and water available to be determined. The cultivation plan recommended should be imperative for farmers otherwise the whole development is liable to be affected. Its economic value on both a national and regional level would vanish or be considerably reduced.

The Regional Agricultural Development Offices, however, have at present no regulations enabling them to impose a cultivation plan for reticent farmers or to make them follow certain procedures to protect plants from parasites and various diseases. It is urgently necessary to oblige all beneficiaries of irrigation water to adopt a precise cultivation plan and protection and soil improvement measures.

There are various measures which may induce farmers to observe the directions of the Development Offices: distribution and charging of water, grant of credits, farming contracts etc.

6) Recovery of the incremental value

The considerable investment undertaken by the State to develop certain areas constitutes a major factor in enriching the land of those owners benefitting from irrigation.

The aims of the agricultural policy as outlined above also favour the redistribution of land in certain regions, enabling larger numbers to benefit from irrigation. These aims, also conclude that increased output from land holdings is essential in order to maintain the standard of living in the countryside and to halt as far as possible the drift from the land.

In order to ensure impartiality, economic profitability and also to provide a balance of income, the State should recover the incremental value deriving from its projects.

Each category of irrigated land should restore to the State a proportion of the incremental value acquired as a result of the development carried out. Such categories should be determined after a technical enquiry, by region, type of farming and by the nature of the soil.

Recovery of the incremental value can be made in two ways, either in cash or in kind. The latter will be adopted wherever the land is sufficiently extensive. The proportion to be recovered and the assessment of its amount will be determined amicably; in default of such agreement the State will have recourse to the legal provisions in force governing expropriations.

Whenever the State decides to recover the incremental value in a given region it is essential for the State previously to halt all real estate transactions in that region.

It should also control these transactions in those regions where it decides to intervene.

2. - Structural framework

The Ministry of Agriculture and Agrarian Reform has had a number of various stuctural modifications.

The most glaring consequence of this has been the splitting up of the various Directorates and a lack of co-ordination and integration among various sub-sector policies.

The Five Year Programme of the Ministry of Agriculture can only be carried out if a new organisation, integrating the various Directorates divisions, services etc., into one properly structured and efficient body, is set up over the five year period.

The administration responsible for providing the staff throughout the country again can only do the work expected of it if it adapts itself increasingly every day to the realities of the countryside and to the inevitable delays caused by farming priorities.

The administrative procedures for financial control and allocation of credit, although more flexible at the end of 1967, should be simplified even further and adapted to the peculiarities of agriculture. A close study should be made of the circuit of the administrative documents through the various offices and the delays caused in each of these and similar research should be made into the causes of delay in signing in order to determine the obstacles in the way of speeding up these procedures.

Technical routine should give way to a continual search for new methods ever more suited to the realities of the land. Technology is advancing very rapidly throughout the world and engineers and technicians find it increasingly difficult to keep abreast of the latest developments abroad or even in Morocco itself. The administration should therefore plan periodic refresher courses for its engineers and technicians. Experiments made elsewhere have indicated that output by senior grades can increase by up to 30 or 40% after a series of such courses and by means of continuous training.

Guidelines for reorganisation

Adaptation of the organisation to the aims of the agricultural policy. The general organisation of the Ministry of Agriculture should be a function of the agricultural policy aims. Such an organisation should provide at all levels for a smooth progression from the design stage to execution.

At design stage, the function of programming and planning should be to translate ministerial or government directives into a project, an annual programme or one lasting several years. It should ensure the co-ordination and permanence of the various projects and their integration in the overall programme.

At execution level, schemes should be technically very precise and co-ordinated among themselves at all levels. Each scheme should be followed by technical control and its economic value should be periodically reviewed by the central organisation.

Precise definition of the powers of the various authorities

The present organisation of the Ministry is characterised by imprecisely defined powers of certain directorates. This can be fairly quickly remedied by combining in each directorate all activities falling under one clear-cut agricultural sub-section. The concentration of technical schemes in the central directorates should be offset by decentralisation of the regional offices and provincial services and by their vertical relationship with all Ministry directorates. Decentralisation, which is a principle of the regional planning policy, can only be effective if combined with close co-ordination from top to bottom.

Co-ordination among the various Ministry services

Demarcating the respective powers of the directorates should result in a close inter-project collaboration. Co-ordination should be a principle which governs the action of each director but it should also be provided by a special department. All schemes incorporated under the various projects should work for the same objective, which is the maximum development of Morocco's agricultural regions.

A - SUMMARY TABLE OF INVESTMENT IN THE IRRIGATED AREA

(in 1,000 DH)

	1968	1969	1970	1971	1972	TOTA
Moulouya...........	24,120	27,235	27,480	20,735	16,935	116,5
Gharb..............	15,720	15,910	12,500	15,865	11,365	71,36
Doukkala...........	15,860	10,355	5,835	6,195	6,195	44,44
Haouz..............	14,830	27,200	27,779	21,235	24,000	115,04
Tadla..............	23,750	40,650	26,202	13,780	11,780	116,16
Tafilalet..........	19,100	13,605	9,361	9,395	6,585	58,04
Quarzazate.........	3,570	8,390	6,770	9,820	10,820	39,3
Souss-Massa........	4,854	2,316	3,200	13,200	13,300	36,8
Loukkos............	455	1,420	7,365	8,380	12,380	30,00
Sebou..............	155	1,370	5,915	13,450	22,450	43,34
TOTAL	122,414	148,451	132,407	132,055	135,810	671,13

SUMMARY TABLE OF INVESTMENT IN IRRIGATED AREAS

(in 1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
General studies	9,121	8,876	2,710	150	143	21,000
Water-engineering equipment	75,729	114,495	107,417	111,465	114,264	523,370
Development of the bog areas	11,731	8,460	7,000	6,500	7,065	40,756
Rural equipment	4,765	5,863	3,665	3,665	3,863	21,821
Economic equipment	1,700	400	2,500	2,100	2,300	9,000
Service installations	18,410	9,415	8,175	7,225	7,225	50,450
Agricultural interventions	958	942	940	950	950	4,740
TOTAL	122,414	148,451	132,407	132,055	135,810	671,137

B - SUMMARY TABLE OF INVESTMENTS AND SUBSIDIES IN THE BOG AREAS

	1968	1969	1970	1971	1972	TOTAL
1. - Development Directorate Interventions						
11 - General Studies (p.m.)	-	-	-	-	-	-
12 - Small- and medium-scale water engineering works	17,510	18,080	20,050	20,770	24,590	101,000
13 - Rural equipment	13,000	10,000	10,000	10,000	10,000	53,000
14 - Land improvement	600	700	800	900	1,000	4,000
15 - Dry regrouping	-	650	650	-	-	1,300
16 - Distribution	6,310	5,510	5,770	6,110	6,300	30,000
17 - Fruit-tree nurseries	1,260	290	150	150	150	2,000
18 - Economic equipment	400	400	400	400	400	2,000
19 - Agricultural projects						
191 - Advisory service	3,000	2,725	2,725	2,725	2,725	13,900
192 - Purchase of tractors by private individuals	510	765	1,020	1,275	1,530	5,100
193 - Fertilisers	3,280	3,800	4,240	4,680	5,200	21,200
194 - Original stock seeds - production bonus	1,043	1,200	1,357	1,500	1,650	6,750
195 - Original stock seeds - purchase of seeds	3,325	3,520	2,520	2,450	2,310	14,125
196 - Equipment and implements	800	800	800	800	800	4,000
197 - Tree planting schemes	750	940	1,170	1,220	1,340	5,420
1.10 - Service Installations	14,900	11,800	11,800	11,700	11,300	61,500
Sub Total 1......................	66,688	61,180	63,452	64,680	69,295	325,295
2. - Other Directorates' Interventions						
21 - Original stock cereal seeds	4,720	5,160	5,570	5,660	6,290	27,400
22 - Hybrid maize	20	30	40	80	200	370
23 - Oil seeds	150	200	250	300	350	1,250
Sub Total II......................	4,890	5,390	5,860	6,040	6,840	29,020

3. - Directorate of Waterways and Forests						
31 - Reafforestation	11,000	13,000	14,000	15,000	17,000	70,000
32 - S.P.R. and Pasture Development	8,500	9,000	10,000	11,300	13,500	52,300
33 - Forestry planning	700	800	900	1,000	1,100	4,500
34 - Forestry Research	400	500	550	600	650	2,700
35 - Forest telephone communications and dwellings	1,600	1,900	2,100	2,150	2,250	10,000
36 - Opening up of tracks and paths	1,500	2,500	3,000	3,500	4,500	15,000
37 - Pisciculture and allied schemes	40	50	60	70	80	300
38 - Administrative buildings	500	510	530	560	600	2,700
Sub Total III	24,240	28,260	31,140	34,180	39,680	157,500
4. - D.E.R.R.O.						
41 - Integrated development region	4,100	4,200	4,600	5,000	5,200	23,100
42 - Medium-scale water engineering regions	5,245	5,840	5,395	990	1,200	18,670
43 - Forestry projects	1,000	3,000	4,000	5,000	5,340	18,340
44 - Road system (p.m.)	-	-	-	-	-	-
Sub Total IV	10,345	13,040	13,995	10,990	11,740	60,110
GRAND TOTAL	106,163	107,870	114,447	115,890	127,555	571,925

C - SUMMARY TABLE OF INVESTMENTS AND SUBSIDIES FOR STOCKBREEDING

(in 1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
I - HEALTH UNITS						
11 - Inspections and treatment stations	1,450	1,750	1,650	1,400	1,250	7,500
12 - Laboratories	1,000	1,000	1,000	100	100	3,200
13 - Anti-parasite dips	190	260	240	230	200	1,120
14 - Discounts on medical supplies (S)	20	30	40	40	50	180
Total.........	2,660	3,040	2,930	1,770	1,600	12,000
2 - INCREASED FEEDING PROGRAMME						
21 - Fodder operation	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
22 - Improbement of grazing land	9,610	5,700	5,500	5,000	5,290	31,100
23 - Individual and group fodder reserves(S)	800	900	1,000	1,200	1,300	5,200
24 - State emergency reserve (S)	900	1,000	1,100	1,200	1,400	5,600
Total.........	11,310	7,600	7,600	7,400	7,990	41,900
3 - GENETIC IMPROVEMENT						
31 - Beef and dairy cattle	6,290	6,120	4,790	3,495	2,635	23,330
32 - Sheep and goats	350	400	350	300	-	1,400
33 - Horses	870	1,630	1,000	750	750	5,000
34 - Pultry farming	210	440	280	170	-	1,100
35 - Beekeeping	182	182	162	142	132	800
Total.........	7,902	8,772	6,582	4,857	3,517	31,630
Subsidies						
36 - Pure breed cattle purchases (S)	594	689	689	743	740	3,455
37 - Purchases of breeding animals (S)	250	300	300	326	369	1,545
38 - Poultry purchases (S)	300	350	400	450	500	2,000
39 - Stockbreeding bonuses and competitions(S)	360	380	400	420	440	2,000
Total.........	1,504	1,719	1,789	1,939	2,049	9,000

	1968	1969	1960	1971	1972	TOTAL
4 - STOCKBREEDING BUILDINGS						
41 - Beef and dairy cattle	280	405	492	328	345	1,850
42 - Sheep, goats	430	490	550	610	670	2,750
43 - Poultry	90	90	90	90	90	450
44 - Beekeeping	90	90	105	125	125	535
45 - Fodder storage	10	20	30	40	50	150
Total...........	900	1,095	1,267	1,193	1,280	5,735
5 - MARKETING						
51 - Milk collection	720	600	1,080	1,020	1,020	4,440
52 - Berkane dairy industry	-	-	-	2,500	-	2,500
53 - Milk development fund	1,650	150	700	-	-	2,500
54 - Meat intervention fund	100	600	400	-	-	1,100
55 - Slaughterhouses and cold storage units	-	-	-	-	-	-
56 - Dairy federation (S)	200	150	100	50	-	500
57 - Milk development fund (S)	1,275	1,020	805	585	315	4,000
58 - Meat intervention fund (S)	1,000	1,100	1,200	1,300	1,400	6,000
59 - Others (wool, honey, etc.)	50	65	75	85	100	375
Total...........	4,995	3,685	4,360	5,540	2,835	21,415
6 - OTHERS						
61 - Sundry groups (S)	50	80	100	120	150	500
62 - Draught animals (S)	53	56	60	64	67	300
63 - Stockbreeding Chart	100	100	-	-	-	200
64 - Advisory service facilities	150	200	200	220	230	1,000
65 - Training courses (Agricultural Training Directorate)	-	-	-	-	-	-
Total...........	353	436	360	404	447	2,000
GRAND TOTAL	29,624	26,347	24,886	23,103	19,718	123,680

SUMMARY TABLE OF INVESTMENTS AND SUBSIDIES FOR AGRICULTURAL PRODUCTION SUPPORT SCHEMES

(in 1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
I - AGRICULTURAL RESEARCH						
11 - Experimental stations	2,906	3,424	2,515	1,405	750	11,000
12 - Protection of vegetation	500	255	395	440	705	2,295
13 - Horticulture	0	50	0	50	0	100
14 - Regional centres	0	50	50	0	0	100
15 - Suitability tests	0	315	105	105	45	570
16 - Control and production of original stock seeds	345	50	5	150	90	640
17 - Scientific directorate	3,610	685	570	970	1,470	7,305
18 - Documentation, distribution and specialised general studies	125	1,825	1,825	2,075	2,075	7,925
19 - Vehicles	35	15	5	5	5	65
Sub-total 1	7,521	6,669	5,470	5,200	5,140	30,000
LOCUST AND BIRD CONTROL						
Construction, development, maintenance	141	360	149	150	150	950
Purchase, rental, renewal of equipment	1,860	9,330	5,200	5,200	5,200	27,050
Operation of equipment	420	2,530	2,000	2,000	2,000	8,950
Products employed	656	6,437	7,008	7,008	7,008	28,117
Transport, displacement costs	170	1,471	1,200	1,200	1,200	5,241
Documentation, postal charges	10	90	80	80	80	340
Current expenditure and seasonal staff	320	1,532	1,500	1,500	1,500	6,352
Sub-total 2	3,577	22,010	17,137	17,138	17,138	77,000

2 - STUDY PROGRAMME						
21 - Liquidation of former convention	3,360	2,000	2,000	2,000	2,000	11,360
22 - Sebou study	3,500	-	-	-	-	3,500
23 - Oum-Er-R'bia study	1,000	1,000	1,000	-	-	3,000
24 - Technical studies	200	250	250	250	300	1,250
25 - Socio-economic studies	600	600	600	600	600	3,000
26 - Outside staff	350	350	350	350	350	1,750
27 - Administrative equipment	50	50	50	50	50	250
28 - Documentation	150	150	100	100	100	600
Sub-total III	9,210	4,400	4,350	3,350	3,400	24,710
3 - LAND CONSERVANCY AND TOPOGRAPHICAL SERVICE						
31 - Setting up land units	200	1,100	1,000	230	-	2,530
32 - Levelling and triangulation	400	600	550	550	650	2,750
33 - Drawing up and revising maps	300	2,000	2,000	2,000	2,500	8,800
34 - Main regions	1,300	2,500	2,500	2,500	2,820	11,620
35 - National Survey	1,000	3,820	2,000	3,000	3,680	13,500
Sub-total IV	3,200	10,020	8,050	8,280	9,650	39,200
4 - OTHER EQUIPMENT						
41 - Suppression of fraud	40	40	40	40	40	200
42 - Household waste disposal factories	956	954	900	1,100	1,130	5,040
43 - Cold storage industry	1,600	1,600	-	-	-	3,200
44 - Slaughterhouses and cold storage units	1,710	600	590	550	160	3,610
Sub-total V	4,306	3,194	1,530	1,690	1,330	12,050
GRAND TOTAL	27,814	46,293	36,537	35,658	36,658	182,960

GENERAL SUMMARY OF INVESTMENTS AND SUBSIDIES OF THE MINISTRY OF AGRICULTURE AND AGRARIAN REFORM

	1968	1969	1970	1971	1972	TOTAL
A - Irrigated areas	122,414	148,451	132,407	132,055	135,810	671,137
B - Bog area	106,163	107,870	114,447	115,890	127,555	571,925
C - Stockbreeding	29,624	26,347	24,888	23,103	19,718	123,680
D - Support schemes	27,814	46,293	36,537	35,658	36,658	182,960
TOTAL	286,015	328,961	308,279	306,706	319,741	1,549,702
Agricultural Training	5,280	4,250	1,920	800	750	13,000
GRAND TOTAL	291,295	333,211	310,199	307,506	320,491	1,562,702

KING DOM OF MORROCCO

PRIME MINISTER
MINISTRY OF ECONOMIC AFFAIRES PLANNING

AND THE TRAINING OF SENIOR GRADES

Planning and Statistical Division

FIVE YEAR PLAN

1968-1972

VOLUME II
DEVELOPPEMENT BY SECTOR

CHAPITER II

AGRICULTURE

MARCH 1968

DAMS

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DAMS

I - EVALUATION OF THE THREE YEAR PLAN

Before making any evaluation, mention should be made of the changes in the administration structures.

Before, all irrigation work and equipment came under the Office National des Irrigations - O.N.I. - (National Irrigation Office) and then under the Office de Mise en Valeur Agricole - O.M.V.A. - (Agricultural Development Office). When the latter was dissolved in October 1966 its work was split up into the study, building and operation of the major water engineering installations under the Water Engineering Directorate (Ministry of Public Works), the other equipment concerned with irrigation coming under the Ministry of Agriculture.

The Three Year Plan had drawn up a general programme of O.N.I. schemes in which the major work included not only dams and dead-end canals but also main irrigation canals. In order to prepare an evaluation as against forecasts, the O.N.I. and O.M.V.A. construction work on dams and dead-end canals will be included under the general "Agricultural" evaluation; we shall confine ourselves here in this section to the work of the Water Engineering Directorate during 1967.

Work of the Water Engineering Directorate
between 1.1.67 and 31.12.67

(Unit: 1,000 DH)

DESCRIPTION	Credits available in 1967	Allocations at 31.12.67	%
- General studies of the main water-engineering installations	3.000	-	
- New work and major repairs:			
Lower Moulouya	9.520	9.063	95,2
Strengthening the Nakhla	4.100	4.086	99,6
Raising the El Kansera dam	240	-	
Ait Adel	35.740	33.830	94,7
Ziz	28.379	20.000	70,5
Zaouia N'Ourbaz	10.000	10.000	100,0
- Various (vehicles etc.)	885	885	100,
- Water resources			
Hydrology	1.600	1.070	66,9
Hydrogeology	6.900	5.788	83,9
TOTAL	100.364	84.722	84,4

The general index of achievement thus amounts to 84%. The use of credits allocated for new work and major repairs, however, amounts to 88%. The non-utilisation of study credits was due to the fact that the Water Engineering Directorate, which was set up at the beginning of 1967, was faced immediately with many problems; a co-ordinated programme of general studies of the major water-engineering projects and a survey of water resources is therefore proposed under the Five Year Plan, details of which will be given below.

II - POLICY TRENDS

The Government will continue its programme of building major water-engineering projects, which was begun under previous Plans, in order to achieve by means of irrigation the development of land suited to cultivation and the increased production of high yield crops.

Both present and future efforts, therefore form part of a long-term agricultural policy, the fruits of which will be increasing constantly over the next decades.

......

Previously, increased agricultural output was achieved mainly through extending the land under sowing. The annual cereal production available per head was therefore maintained between 1951 and 1955 at approximately 360 kg. Over the last twenty years or so, however, everything capable of being grown has, in fact been cultivated, often under very indifferent conditions and with no account being taken of erosion. Cereals are now grown over some 4 million hectares. or 90% of annual sowings and the limit has been reached.

Traditional agriculture alone therefore, based on cereal production is not capable of meeting the needs of a fast growing population. Recourse will therefore have to be had to other methods and other cultivations. This is why Morocco has opted for a large-scale policy of building major dams in order to develop irrigable land.

The present census of this land amounts to approximately one million hectares. To irrigate a million hectares is equal to clearing 5 million hectares for dry farming as yield is higher, production more regular and has a greater value.

At present Morocco is irrigating by non-traditional methods some 150,000 hectares; the new dams, with a total retention of 7.1 to 7.8 thousand million cubic metres, once fully operational, will provide irrigation for 400,000 to 450,000 additional hectares. In other words the integrated use of the planned equipment will enable more than half the land capable of irrigation to be developed.

Fast growing and high yield cultivations provide employment and raise the rural population's level of income. On a nation-wide level this increase in production will enable new allied industries to be established and exports to be increased.

Finally, by their regulating effect on the flow of rivers, the dams form a necessary aid in controlling the devastating floods and are a first-class mainstay of the policy of soil protection and reinstatement.

By absorbing the fast rising storm floods, in fact, they avoid downstream erosion of soil suitable for cultivation and prevent or reduce flooding. Up-stream, reafforestation of the catchment basins stabilises the soil and increases the country's forest patrimony.

Under the Five Year Plan, therefore, a considerable effort representing 746 million DH or approximately 16% of the State equipment budget will be devoted to the completion, replanning or building of new dams. This programme will increase the total irrigated land to 308,000 hectares by the end of the Plan. The summary table below shows the breakdown of this programme.

HEADING	(in millions of DH)
General studies, major repairs and sundry	30.9
Completion of current projects	255.0
Replanning of existing projects	24.0
New projects	421.4
Studies of new projects	14.5
TOTAL	745.8

This credit breakdown indicates the considerable impetus given to the building programme. This policy will be continued beyond the Five Year Plan as, out of the credits allocated for new projects, 14 million DH will be reserved for complete studies of four dams, work on which will begin in 1973. At the same time the following Plan will see the completion of the four dams which will be started under the present Five Year Programme.

Finally, general studies of water resources and the feasibilities of building new dams will be carried out in order to ensure a rational utilisation of Morocco's natural resources.

The success of such a policy, the cost to the State of which we have just seen, presupposes a number of prerequisites:

- the existence of a canal network bringing water up to and inside the farms;

- increased cultivation of irrigated areas particularly by developing new crops with industrial markets.

- and above all, the existence of an overall development plan for the region, incorporating all aspects of regional development.

Development of a region goes beyond building dams. The reserves of water harnessed by these dams must be used rationally. Consequently particular attention should be given to planning water supply canal systems and to schemes for regrouping and levelling land. Work on this should start with existing projects where the complementary equipment has yet to be completed. The necessary credits for this purpose are provided under the Five Year Plan and the programme for their use will be found under the "Agricultural" section.

Increased production in the irrigated areas will be urged as much as possible. Increased production means raising the yield from each crop by using original stock seeds and fertilisers, accelerating crop rotations as far as possible, providing close liaison between cultivation and stockbreeding, producing products with markets in Moroccan industries and finally encouraging products for export as against products intended solely to increase end demand.

The significance of these priorities is that Morocco rejects the concept that developing countries should, as a matter of principle and before anything else, cover their own food requirements; this concept is too radical. On the contrary, products intended for local industrial processing and having a high export potential will enable the necessary purchases to be made to cover cereal needs.

Development of the irrigated regions will come within the framework of definite development plans, normally under the responsibility of the Regional Development Offices. These plans, such as the Sebou project, combine several schemes (S.P.R., building canal systems, developing certain cultivations) which are supported by a number of other measures (construction of rural centres and dwellings to stabilise the populations, advisory programmes etc.)

III - THE PROGRAMME

The detailed study of the projects adopted under the water-engineering installations programme comprises five sections.

The first is devoted to general studies, major repairs, service installations and various projects. The other sections are made up of analytical descriptions of the major projects now being completed, the replanning of existing projects and descriptions of the new dams.

First, the following will be summarised in three tables:

1. The programme of expenditure
2. The work schedule
3. The number of jobs created.

TABLE I - THE PROGRAMME OF INVESTMENT EXPENDITURE

(in 1,000 DH)

HEADINGS	Total	Before 1968	1968	1969	1970	1971	1972	After 1972	Plan 68-72
1. STUDIES AND SUNDRY									
1.1 Survey of surface water	3,100	-	2,100	1,000	-	-	-	-	3,100
1.2 Survey of underground water	19,700	-	4,700	2,500	5,200	4,000	3,300	-	19,700
1.3 Major repairs	1,300	-	800	500	-	-	-	-	1,300
1.4 Service installations	3,800	-	600	1,000	2,000	100	100	-	3,800
1.5 Studies and sundry projects	3,000	-	1,000	1,000	1,000	-	-	-	3,000
TOTAL 1 :	30,900	-	9,200	6,000	8,200	4,100	3,400	-	30,900
2. PROJECTS BEING COMPLETED									
2.1 Mechra Klila Dam	66,500	60,000	6,500	-	-	-	-	-	6,500
2.2 Lower-Moulouya: Bou Areg supply canal	4,000	500	3,500	-	-	-	-	-	3,500
2.3 Ait Adel Dam	144,000	40,000	28,000	34,000	30,000	12,000	-	-	104,000
2.4 Ziz Dam	176,000	35,000	46,000	40,000	40,000	15,000	-	-	141,000
TOTAL 2 :	390,500	135,500	84,000	74,000	70,000	27,000	-	-	255,000
3. REPLANNING OF EXISTING PROJECTS									
3.1 Lower-Moulouya: dead-end tunnel	11,000	1,000	3,000	7,000	-	-	-	-	10,000
3.2 Strengthening Nakhla dam	14,000	6,500	7,500	-	-	-	-	-	7,500
3.3 Raising El Kansera Dam	7,000	500	4,000	2,500	-	-	-	-	6,500
TOTAL 3 :	32,000	8,000	14,500	9,500	-	-	-	-	24,000

HEADINGS	Total	Before 1968	1968	1969	1970	1971	1972	After 1972	Plan 68-72
4. BUILDING NEW DAMS									
4.1 Redevèlopment of Loukkos Dam	10,000	200	500	1,300	4,000	4,000	-	-	9,800
4.2 Arabat Dam	158,000	4,000	2,000	18,000	31,000	34,000	40,000	29,000	125,000
4.3 Grou water supply	152,500	1,500	17,000	20,000	14,000	33,000	32,000	35,000	116,000
4.4 Sidi Cheho Dam	104,000	1,000	1,000	3,000	10,000	20,000	20,000	49,000	54,000
4.5 Development of the Massa, Tankist Dam, Dead-end gallery	95,000	1,000	4,800	3,000	7,000	22,000	22,000	35,200	58,800
4.6 Zaouia N'Ourbaz Dam	69,000	11,200	3,700	28,500	12,800	12,800	-	-	57,800
TOTAL 4 :	588,500	18,900	29,000	73,800	78,800	125,800	114,000	148,200	421,400
5. STUDY OF NEW DAMS									
5.1 Loukkos: T'Fer Dam	5,000	500	2,000	1,500	1,000	-	-	-	4,500
5.2 Dam in the Lakhdar basin (and allied projects)	7,000	1,500	2,000	2,000	1,000	500	-	-	5,500
5.3 Dechra El Oued Dam	6,000	2,000	-	-	-	1,000	1,000	2,000	2,000
5.4 N'Fis gorge dam	3,000	500	200	1,100	600	500	100	-	2,500
TOTAL 5 :	21,000	4,500	4,200	4,600	2,600	2,000	1,100	2,000	14,500
GRAND TOTAL	1062,900	166,900	140,900	167,900	159,600	158,900	118,500	150,200	745,800

TABLE 2 - WORK SCHEDULE

--------- Preparatory studies and work

========= Actual projects

HEADING	Before 1968	1968	1969	1970	1971	1972	1973	1974	1975	1976
Bou Areg supply canal	---	===								
Moulouya: dead-end tunnels	---	===	===							
Strengthening the Nakhla Dam	===	===								
Loukkos: T'Fer Dam	---	---	---	---	---	---				
Loukkos: Retention Dam	---	---	--- ===	===	===					
El Kansera	---	===	===							
Arabat	---	---	--- ===	===	===	===	===			
Grou	---	--- ===	===	===	===	===	===	===		
Sidi Cheho	---	---	---	--- ===	===	===	===	===		
Ait Adel	===	===	===	===	===					
Massa	---	---	---	---	===	===	===	===		
Ziz	---	===	===	===	===					
Zaouia N'Ourbaz	---	---	===	===	===					
Lakhdar	---	---	---	---	---	---				
Dechra el Oued			---	---	---	---				
N'Fis	---	---	---	---	---	---				

TABLE 5 . JOBS CREATED UNDER THE PROGRAMME

	Moroccan	Foreign
Lower Moulouya - Bou Areg supply canal	200	5
Lower Moulouya - Left bank dead-end tunnels	400	20
Nakhla Dam	600	20
Development of the Loukkos Retention Dam	200	10
Raising the El Kansera Dam	100	10
Arabat	1 000	50
Grou Dam	700	50
Sidi Cheho Dam	600	50
Ait Adel Dam	600	50
Development of the Massa	600	50
Ziz Dam	600	70
Zaouia N'Ourbaz Dam	600	50

PART 1 : STUDIES AND VARIOUS PROJECTS

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1.1. - Study of surface water 12

1.2. - Study of underground water 13

1.3. - Major repairs 14

1.4. - Service installations 16

1.5. - Various studies and work 17

WATER RESOURCES

1.1. STUDY OF SURFACE WATER

HYDROLOGY - CLIMATOLOGY

Definition of project : Building and equipping of hydrometeorological and hydrological measuring stations. Setting up flood warning systems.

Purpose : Continuing the programme of providing measuring stations in the territory to provide the basic data for planning the country's major water-engineering installations.

Exploitation and distribution of the results.

Investment : 3.1 million Dirhams, broken down as follows:

HEADING	IN THOUSANDS OF DIRHAMS					TOTAL 1968-72
	1968	1969	1970	1971	1972	
Construction of measuring stations	600	200	-	-	-	800
Measuring equipment	1,000	300	-	-	-	1,300
Studies	500	500	-	-	-	1,000
	2,100	1,000	-	-	-	3,100

Foreign exchange share : 75% by direct and indirect bills

WATER RESOURCES

1.2. STUDIES OF UNDERGROUND WATER

HYDROGEOLOGY - UNDERGROUND HYDRAULICS

Definition of project: Prospection by geophysical methods, draining, wells and drilling. Evaluation studies and projects for exploiting underground water by means of analogical and mathematical models.

Purpose: Continuing prospection, then systematic survey of the country's underground water resources in order to tap them for the development of irrigated farming, industry and the needs of man and beast. Study of the rational exploitation of underground water and the preservation of this natural asset.

Investment: 19.7 million Dirhams, broken down as follows:

HEADING	IN THOUSANDS OF DIRHAMS					TOTAL 1968-72
	1968	1969	1970	1971	1972	
- Geophysical surveys	400	400	400	400	300	1,900
- Exploitation and exploration of drains, wells, drills.	3,100	1,100	3,700	3,100	2,500	13,500
- Evaluation studies and exploitation studies on models	-	-	500	500	500	1,500
- Souss Project, Moroccan counterpart	1,200	1,000	600	-	-	2,800
	4,700	2,500	5,200	4,000	3,300	19,700

Foreign Exchange Share: 25% by direct and indirect bills

1.3. - MAIN WATER-ENGINEERING INSTALLATIONS - MAJOR REPAIRS

It is customary to include the major repair of existing installations under the investment budget.

The water-engineering directorate is responsible for expbitation of the main water-engineering installations.

- Mechra Homadi Dam, Triffas Canal, Zebra Canal

Both the Mechra Homadi Dam and the Triffas Canal have been in service for more than ten years. The first ten-year maintenance programme on these two installations is therefore due in 1968.

We are therefore providing:

- 300,000 DH for 1968
- 100,000 DH for 1969

- El Kansera Dam

Major repairs will be carried out when the dam is raised. Estimated allocation in 1969 : 100,000 DH.

- Imfout Gallery

Not enough is known about the state of the gallery to estimate the possible cost of repairs.

Estimated allocation for 1968-1969 : 200,000 DH.

- Tassaout gallery and branch work

As the installations were recently built no major repairs are needed.

- N'Fis Dam

The Haouz Regional Office is still responsible for exploitation of this dam. No major repairs are scheduled for this installation.

Estimated allocation : 100,000 DH per annum.

- Kasba Tadla Dam and Branch Canal

The Kasba Tadla Dam only requires current maintenance apart from some hydro-mechanical equipment which may require renewal.

The branch canal, however, has been in service for more than 30 years and major repairs will probably be needed.

Estimated allocation : some 200,000 DH for 1968 and 1969.

- **Nakhla canal**

This canal supplies the regularised water from the Nakhla Dam to Tetouan and the Rio Martil region.

Essential major repairs : 200,000 DH in 1968 - 1969.

Summary of investments

HEADING	IN THOUSANDS OF DIRHAMS					
	Total	1968	1969	1970	1971	1972
Lower Moulouya	400	300	100	-	-	-
El Kansera	100	-	100	-	-	-
N'Fis	100	100	-	-	-	-
Kasba Tadla	200	100	100	-	-	-
Nakhla	200	100	100	-	-	-
Imfout	200	100	100	-	-	-
Others	100	100	-	-	-	-
TOTAL	1,300	800	500	-	-	-

1.4. - SERVICE INSTALLATIONS

1 - Central Services of the Water Engineering Directorate:

The Water Engineering Directorate at present occupies two buildings previously transferred to the former O.N.I. at the old air base in Rabat.

Space is limited in view of the development planned.

Estimate: 2 million dirhams (4,500 m2 at 400 DH/m2, plus garage and workshop).

Programme : 1968 - 100,000 DH
1969 - 100,000 DH
1970 -1900,000 DH

2 - Outside services:

Water resources division:

- Offices needed in the regional centres: Beni-Mellal, Ouarzazate, Berkane, Tangiers, Fez, Casablanca.
- Accommodation at Beni-Mellal, Ouarzazate, Berkane, Kenitra, Tangiers.

Cost:

- 6 offices at 200,000 DH	1,200,000 DH	(2 in 1968 and 4 in 1969)
- 5 dwellings at 60,000 DH.....	300,000 DH	(1 per annum)
	1,500,000 DH	

3 - Exploitation of the main installations:

A few watchmen's dwellings:

10 to 20,000 DH ....200,000 DH

to be distributed evenly over the five years of the Plan.

SUMMARY

HEADINGS	IN THOUSANDS OF DH					
	Total	1968	1969	1970	1971	1972
- Central Services of the Water Engineering Directorate	2,100	100	100	1,900	-	-
- Outside Services - Water Resources Division	1,500	460	860	60	60	60
- Exploitation	200	40	40	40	40	40
TOTAL	3,600	600	1,000	2,000	100	100

1.5. - VARIOUS STUDIES AND WORK

Apart from the installations previously mentioned, on which the majority of the work should be carried out during the Five Year Plan, other installations should either be studied or work started on them over the next five years.

Mention should be made in particular of:

- The Oued Souss and Oued Issen Dams;
- The Ksob Dam to supply water to Essaouira and also for irrigation purposes;
- The dam on the Guis to irrigate the NEKOR plain (Province of Alhuceimas);
- The central Haouz Dam for irrigation purposes;
- Raising the N'Fis Dam;
- The various dams of secondary importance situated in these basins where development work has already begun (Oued Derma Bou Krichlet, Oued Lakhdar, Bou Regreg, Kerikera, etc.).

Certain general studies will also have to be made (regularisation, site locations).

Finally, certain development previously carried out requires additional work:

- Supply of water to the Safi Chemical Plant

The dyke retention reservoir is not watertight; work is nee to eliminate leaks.

Investment planned : 1968 - 250,000 DH
1969 - 250,000 DH

- Tessaout gallery and branch work

  - Supply and assembly of part of the hydro-mechanical equipment
  - Checking the civil engineering work

Investment planned : 1968 - 750,000 DH

Investment

HEADINGS	IN THOUSANDS OF DIRHAMS						
	Total	1968	1969	1970	1971	1972	Total 1968-7
Various studies and work	5,000	1,000	1,000	1,000	-	-	3,000

PART 2 : CURRENT WORK BEING COMPLETED

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2.1. - Mechra-Klila Dam 19

2.2. - Lower Moulouya, Bou Areg Supply Canal 20

2.3. - Ait Adel Dam 21

2.4. - Ziz Dam 22

2.1. - MECHRA KLILA DAM

Geographical location : on the Oued Moulouya
60 km south of Nador (Province of Nador)

Specifications : - Concrete curved gravity dam
- Height: 64 m above foundations
- Length along ridge: 205 m
- Total retention: 730 million m3
- Working retention: 535 million m3

Hydro-electric plant: fall of 33 to 48 m
(O.N.E.) flow 60 m3/s at 43 m
Power : 23 MW - Average output : 85 million Kwh

Purpose : Irrigation of 70,000 net hectares in the Lower Moulouya Electric power production

Present situation : - The dam was completed in July 1967 and the hydro-electric plant operation in September 1967.

- Building was carried out between 1960 and 1967, with a break of approximately 2 years following the floods of May 1963.

Investment : - (not including plant)

Before 1968 : 60 million dirhams

In 1968 : 6,500,000 dirhams

Expenditure planned in 1968 including:

- Purchase of a set of coffer-dams to stop up the spillways.......500,000 DH
- Payment to contractors for the first section of civil engineering works .... 5,000,000 DH
- Sundry services and work...1,000,000 DH

Foreign Exchange Share : - 40% by direct and indirect bills

2.2. - LOWER MOULOUYA - BOU AREG SUPPLY CANAL

eographical location : 20 km south south east of Nador (Provinc of Nador)

Specifications : - length - 5,800 metres
- flow - 12 m3/s

Purpose : Part of the development of the left bank of the Lower Moulouya.

Providing liaison between the Bou Areg gallery and the Bou Areg hydro-electric plant.

Present situation : The project was approved in November 1966 by the O.M.V.A. and transferred to the Ministry of Public Works in September 1967.

Work Scheduled : Completion of work scheduled for September 1968.

Investment : N.B. The balance to be paid for the Zebra canal and the Bou Areg gallery have been included in the following investment figures.

Before 1968 : 500,000 DH
In 1968 : 3.5 million DH

Foreign Exchange Share : 15% by direct and indirect bills

Nunber of jobs created on the site : Moroccan : 200
Foreign : 5

2.3. - AIT ADEL DAM

Geographical location : on the Oued Tessaout 70 km east of Marrakesh (Province of Marrakesh)

Specifications : Earth dam 84 m high
Total retention volume - 200 million m
Volume regularised annually - Approx. 220 million m3

Purpose : Irrigation of 27,000 net hectares in th up-stream Tessaout region.

Production of electricity (60,000,000 kwh per annum)

Studies carried out : Draft scheme studies and call for tenders.

Work situation and schedule : Work begun : 14th October 1966
Flooding scheduled for 1970
Completion of work planned for July 19

Investment : (excluding hydro-electric plant)

	IN THOUSANDS OF DIRHAMS								
	Total	Before 1968	1968	1969	1970	1971	1972	After 1972	Total 68-7
Studies and exploration work	6,000	6,000	-	-	-	-	-	-	-
Work and control	138,000	34,000	28,000	34,000	30,000	12,000	-	-	104,000
TOTAL	144,000	40,000	28,000	34,000	30,000	12,000	-	-	104,000

N.B. Hydro-electric plant and installations (O.N.E.) : 32 million dirhams

Foreign Exchange Share : 40 to 45% by direct and indirect bills

Jobs created during building : Moroccan : 600
Foreign : 5

Exploitation and maintenance of the dam . Annual cost : 0.5 to 1% of the cost of the dam.

2.4. - ZIZ DAM

Geographical location : on the Oued Ziz at Foum Rhiour, 10 km up-stream from Ksar-Es-Souk (Province of Ksar-es-Souk)

Specifications : Main dyke and earth annexe.
Maximum height - 71 m above oued bed
Total retention - 380 million m3
Working retention - 280 million m3
Guaranteed volume - 100 million m3

Electric power station - under study
(O.N.E.) Planned production: 15 million Kwh/year

Purpose : Flood control
Irrigation of new sectors and improvement of existing sectors over an area of 15,000 hectares in the Ziz valley and the Plain of Tafilalet.

Production of electricity.

Present situation : Project completed - adjudication being made after putting out to international tender - General site installations being completed.

Work schedule : Ancillary work : 1967-68
Start of dam construction work : end of 1967
Completion of work : beginning of 1971

Investment : (excluding hydro-electric plant)

HEADING	IN THOUSANDS OF DIRHAMS						
	Total	Before 1968	1968	1969	1970	1972	67-72
Studies and exploration work	10,000 166,000	10,000 25,000	-- 46,000	- 40,000	- 40,000	- 15,000	- 141,000
TOTAL	176,000	35,000	46,000	40,000	40,000	15,000	141,000

Foreign Exchange Share : 45% of the total transfer

Jobs created during construction : Moroccan : 600
Foreign : 70

Annual share of maintenance and operation : 0.5% of the cost of the installation.

PART 3 : REPLANNING OF EXISTING INSTALLATIONS

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3.1. - Lower Moulouya : Dead-End Tunnels 24

3.2. - Strengthening the Nakhla Dam 25

3.3. - Raising the El Kansera Dam 26

3.1. - LOWER MOULOUYA

Geographical location : 45 km south south east of Nador (Province of Nador)

Specifications : Dead-end supply installation 11,865 m long, including:

- 10 tunnels, total length : 10,550 m
- various installations (canals, tanks over 1,315 m length.
- normal flow - 17 m3/s

Purpose : To conduct the Moulouya waters, diverte by the Mechra Homadi Dam, to the land to be irrigated on the left bank (Zebra Bou Areg, Gareb), the Bou Areg hydro-electric plant, the town of Nador and the future iron and steel plant.

Present situation : Work carried out between 1952 and 1956 and continued after Independence (1959/63). Extensive crumbling occured after becoming operational due to poor quality first phase concrete.

Repairs and additional equipment are essential to ensure continued effective exploitation.

Work schedule : October 1967 - submission of project
Work to be carried out - March 1968
- August 1969.

Investment : Before 1968 - 1 million DH (excluding expenditure incurred during the first two phases of the work)

1968 - 3 million DH
1969 - 7 million DH

N.B. The cost of repairs and additional equipment is estimated at approximately 7 million DH. This estimate, however, may be exceeded as the project is still not yet finalised and the difficulties involved in work of this kind can result in unforeseen expenditure. A further 3 million DH is provided for studies and the settling of former claims.

Foreign Exchange Share : 20%

Jobs created during construction : Moroccan : 400
Foreign : 20

3.2. - STRENGTHENING OF THE NAKHLA DAM

Geographical location : 15 km south south west of Tetouan on the Oued Nakhla up-stream of the confluence with the Oued Kerikera (Province of Tetouan)

Specifications : Rock-fill dam, 42 m in height, above the Oued bed.
Retention capacity - 9,200,000 m3

Purpose : Supply of drinking water to the towns of Tetouan Martil and Restinga (300 l/s

Irrigation of 700 net hectares in the Rio Martil plain (700 l/s)

Present situation : Dam completed after Independence (completion of work: autumn 1961)

The need to strengthen the dam became apparent as soon as it was flooded. This is now being done and the work includes:

- stabilising the banks immediately up-stream and down-stream of the dam.
- building a watertight screen along the foot of the up-stream dam facing, with rig extensions.
- digging two drainage galleries.

Strengthening project : The technical specification has been prepared.

Work schedule : Start of work: November 1966

Completion of work: October 1968

Investment : Before 1968 : 6.5 million dirhams excluding work carried out between 1947 and 1961

In 1968 : 7.5 million dirhams

Foreign exchange share : 30% direct or indirect bills

Jobs created on the site : - Moroccan : 600
Foreign : 20

3.3. - RAISING THE EL KANSERA DAM

Geographical location : On the Oued Beht 22 km south of Sidi Slimane (Province of Kénitra)

Specifications : Present installation: gravity dam 57 m high
(construction completed in 1934)
Retention:193 million m3

Raising:by a height of 6 m
final height of dam = 63 m
total retention : 297 million m3

Electric power station (O.N.E.) - Power 14 Megawatts
Output 15 million Kwh p.a.
After raising, 17 million kwh/p.a.

Purpose : Control of flood water
Increasing electricity production
Increasing land under irrigation by some 4,000 hectares in the Sidi Slimane region (30,000 hectares).

Improvement of irrigation facilities: in the initial stage the dam will irrigate the land which will eventually be irrigated under the Sebou Project.

Work schedule : Start of work : end of 1967
Completion date : mid 1969

HEADING	IN THOUSANDS OF DIRHAMS				
	Total	Before 1968	1968	1969	Total 1968-1972
Studies and exploration work	1,000 6,000	500 -	500 3,500	- 2,500	500 6,000
TOTAL	7,000	500	4,000	2,500	6,500

Foreign Exchange Share : 40% by direct and indirect bills
25% transferred direct

Jobs created during construction : Moroccan : 400
Foreign : 10

PART 4 : NEW DAMS

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4.1. - Development of the Loukkos Retention Dam 28

4.2. - Arabat Dam 29

4.3. - Grou water supply 30

4.4. - Sidi Cheho Dam 31

4.5. - Development of the Massa, Tankist Dam, Dead-End Gallery 32

4.6. - Zaouia N'Ourbaz Dam 33

4.1. - DEVELOPMENT OF THE LOUKKOS RETENTION DAM

Geographical location : 2½ km approx. up-stream of the port of Larache on a bend cutting to be made on the Loukkos (Province of Tetouan)

Specification : Mobile valve dam some ten metres in height.
Total retention - 13 million m3

Purpose : Protection of the lower Loukkos valley against rising sea-water.

The installation will serve as a reservoir for the pumping of irrigation waters and as a compensation dam for the future electric power station at the T'Fer dam.

Irrigation of several thousand hectares before the T'Fer dam becomes operational.

Situation of the Studies : A draft scheme was drawn up in 1963-64

Studies to be completed, drilling to be carried out before call to tender.

Work schedule : Start of work planned for 1969
Completion of work : 1971

Investment

	IN THOUSANDS OF DIRHAMS								
	Total	Before 1968	1968	1969	1970	1971	1972	After 1972	Total 1968-72
Studies and exploration	800	200	500	100	-	-	-	-	600
Work and control	9,200	-	-	1,200	4,000	4,000	-	-	9,200
Total	10,000	200	500	1,300	4,000	4,000	-	-	9,800

Foreign Exchange Share : 35-50% by direct and indirect bills

Jobs created during construction : Moroccan : 200
Foreign : 10

Exploitation and maintenance of the Installation : annual cost: 1-2% of the cost of the installation.

4.2. - ARABAT DAM

Geographical location : On the Oued Inaouene 25 km from Fez (Province of Fez)

Specification : Concrete dam - hollowed gravity type

60 m in height - 400 m in length

Retention volume : 1,430 million m3

Working volume - 1,100 or 500 million m depending on whether the Sebou-Inaouene derivation is built or not.

Hydro-electric plant (O.N.E.) : Production of electricity:

47 million kwh/per annum without derivation

75 million kwh/per annum with derivation

Purpose : Irrigation - 38,300 hectares (first irrigation under the Sebou Project) - 80,000 after derivation

Electricity

Control of the Inaouene flood waters

Study situation : The draft scheme is complete and the tender documents are being drawn up.

Work schedule : Start of work : January 1969

Completion of work : 1973

Investment (excluding plant)

HEADING	IN THOUSANDS OF DIRHAMS								
	Total	Before 1968	1968	1969	1970	1971	1972	After	Total 1968-1972
Studies and exploration	6,000	3,000	1,000	500	500	500	500	-	3,000
Work	152,000	1,000	1,000	17,500	30,500	33,500	39,500	29,000	122,000
Total	158,000	4,000	2,000	18,000	31,000	34,000	40,000	29,000	125,000

N.B. Hydro-electric power station (O.N.E): Plant 25 million DH including 16 million in 68-72.

- Compensation dam 17,000,000 DH, including 14,750,000 in 1968-72.

Foreign Exchange Share : 35% of total transfer

Jobs created during construction : Moroccan : 1,000
Foreign : 50

Exploitation and maintenance of the installation : 0.56% of the cost of the installation

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

	Total	Private	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	
	[illegible]			
Total	[illegible]	[illegible]		

[illegible]

[illegible]

4.3. - GROU WATER SUPPLY

Geographical location : Dam situated on the Oued Grou 15 km South east of Rabat (Province of Kénitra

Purpose : Supply of water to Rabat and the towns on the Atlantic coast between Rabat and Casablanca. Initial phase for a flow of 4 m3/s in 1972-73 (the second phase rising to 8 m3/s.

Provisional supply should start in May 1969 at a flow of 1 m3/s

Irrigation over a region of some 1,500 hectares

Touristic development.

Specification : Dam: approximately 70 metres high. Total retention capacity approximately 500 million m3

Water supply: pumping station, delivery, processing plant, reservoir and gravity piping to Rabat.

Provisional supply ready in May 1969: method to be determined, based on a provisional coffer-dam, pumping and provisional pipeline.

Study Situation : A survey was made of the Grou site in 1940. Three sites were recommended. The completed development study, specifically the draft scheme for the dam, and the provisional and final supply systems are still to be worked out.

Work schedule : mid 1968 - 1974

Investment : water supplies, only phase 1 has been carried out: 4 m3/s.

(in 1,000 DH)

HEADINGS	TOTAL	Before 1968	1968	1969	1970	1971	1972	After 1972	Total 68-72
Dam									
Studies and exploration......	9,500	1,500	2,000	4,000	1,000	1,000	-	-	8,000
Work	99,000	-	11,000	5,000	10,000	24,000	24,000	25,000	74,000
Total Dam	108,500	1,500	13,000	9,000	11,000	25,000	24,000	25,000	82,000
Water supplies									
Studies and work	44,000	-	4,000	11,000	3,000	8,000	8,000	10,000	34,000
Total GROU	152,500	1,500	17,000	20,000	14,000	33,000	32,000	35,000	116,000

• including 500,000 in 1967

Foreign Exchange Share : 45% by direct and indirect bills

Jobs created during construction: Moroccan : 700
Foreign : 50

4.4. - SIDI CHEHO DAM

Geographical location : On the Oum-Er-R'bia, 60 km south of Settat (Province of Settat)

Specification : Dam approx. 60 metres high (in principle a concrete buttress dam)

Two auxiliary dykes are needed to enclos 2 cols on the right bank.

Total retaining volume: 1.7 thousand million m3

Hydro-electric plant (O.N.E.) at the foot of the dam with an installed power of 80 to 100,000 kw

Purpose : Irrigation of the Abda Doukkala region: 70 to 100,000 hectares.

Production of electric power: 230,000 kwh in the first years - 200,000,000 kwh on completion of the Tadla and Abda Doukkala development regions.

Study Situation : Previous studies carried out between 1948 and 1956 on behalf of EEM (Energie Electrique du Maroc)

Work schedule : The project is still being investigated
Start of work: mid 1970
Completion of work: 1974

Investment : (Not including plant)

HEADING	IN THOUSANDS OF DIRHAMS								
	TOTAL	Before 1968	1968	1969	1970	1971	1972	After	Total 68-72
Studies and exploration	7,000	1,000	1,000	3,000	2,000	-	-	-	6,000
Preparatory work, construction of dam, control	97,000	-	-	-	8,000	20,000	20,000	49,000	48,000
Total	104,000	1,000	1,000	3,000	10,000	20,000	20,000	49,000	54,000

N.B. Hydro-electric plant (O.N.E.): 71 million DH

Foreign Exchange Share : 35 to 40% by direct and indirect bills

Jobs created during construction: Moroccan : 600
Foreign : 50

Exploitation and maintenance of the installation : annual cost : 0.5 to 1% of the cost of the installation.

4.5. - DEVELOPMENT OF THE MASSA TANKIST DAM - DEAD-END GALLERY

Geographical location : On the Oued Massa 30 km north east of Tiznit (Province of Agadir)

Specification : Dam 50 to 70 m high and 100 to 300 million m3 capacity Gallery up to 6 km long.

Purpose : Irrigation of an area of 6,000 to 12,000 hectares

Study Situation : Previous studies carried out in 1948-50: two dam sites, 300 m apart, were investigated.

Studies to be resumed on the basis of present data; additional geological explorations to be carried out.

Work schedule : Start of work : beginning 1971
Completion of work : end 1974

Investment

HEADINGS	IN THOUSANDS OF DIRHAMS								
	Total	Before 1968	1968	1969	1970	1971	1972	1972	Total 68-72
Studies and exploration	7,000	1,000	2,000	2,000	2,000	-	-	-	6,000
Preparatory work, building dam and control gallery	88,000	-	2,800	1,000	5,000	22,000	22,000	35,200	52,800
Total	95,000	1,000	4,000	3,000	7,000	22,000	22,000	35,200	58,800

Foreign Exchange Share : 35 to 40% by direct and indirect bills

Jobs created during construction: Moroccan : 600
Foreign : 50

Exploitation and maintenance of the installation : annual cost: 0.5 to 1% of cost of the installation

4.6. - ZAOUIA N'OURBAZ DAM

Geographical location : On the Oued Draa 15 km east of Ouarzazate (Province of Ouarzazate)

Specification : Concrete dam [illegible] m high above the Oued Bed

Total retention : 560 million m3
Working retention : 536 million m3
Regularised volume : 251 million m3

Electric power station (O.N.E.): installed pow
10 megawatts
Output: 25 mill
kwh per annum

Purpose : Irrigation of an area of 18,000 hecta in the Draa middle valley

Electricity

Study Situation : Previous studies and draft schemes drawn up by the Hydro-Electric Area Board between 1955 and 1958.

The draft scheme and tender documen were submitted at the end of Decembe 1967

Work schedule : Start of work on the dam : 1968
Completion of work (access roads, hous
end 1971

Investment

HEADING	IN THOUSANDS OF DIRHAMS						
	Total	Before 1968	1968	1969	1970	1971	1968-
Study and exploration	9,000	7,500*	1,500	-	-	-	1,
Work	60,000	3,700	2.200	28,500	12,800	12,800	56,3
Total	69,000	11,200	3,700	28,500	12,800	12,800	57.8

* including 1,800,000 dirhams for studies and preliminary work 1955-56-5

Foreign Exchange Share : 35% by direct and indirect transfers

Jobs created during construction : Moroccan : 600
Foreign : 50

PART 5 : STUDY OF NEW DAMS

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5.1. - REPLANNING THE LOUKKOS - THE T'FER DAM - STUDIES -

Geographical location : On the Oued Loukkos 25 km east of Ksa-El-Kebir (Province of Tetouan)

Specification : Concrete dam 50 to 60 m in height

Total retention volume : 600 to 1,000 million m3

Purpose : Irrigation of 25,000 net hectares in the Loukkos plain and on the R'Mel plateau(a further 3,500 hectares will be irrigated in the Soueir and by pumping underground water).

Protection of the Loukkos plain against floods.

Eventual electricity production (approx. 50 million kwh per annum)

Study Situation : Preliminary study carried out in 1963 - 1964 including some geological survey and soil tests

Detailed study carried out in 1968-1969

Investment :

HEADING	IN THOUSANDS OF DIRHAMS							
	Total	Before 1968	1968	1969	1970	1972	After 1972	Total 68-72
Studies and exploration	9,500	500	2,000	1,500	1,000			4,500

5.2. - DAM IN THE LAKHDAR BASIN AND ASSOCIATED PROJECTS - STUDIES -

Geographical location : On the Oued Lakhdar or the Oued N'Ref (left bank tributary of the Lakhdar in the Eastern Haouz (Province of Marrakesh)

Specification : A dam 70 m high at Sidi Driss with a capacity of 220 million m3 and an 8 km long gallery.

Purpose : Irrigation of 30 to 40,000 hectares in the Haouz

Also production of electric power.

Study Situation : More or less detailed studies carried out on each site between 1947 and 1956. Four sites were selected : Sidi Driss, Ait Feska, Ait Chouarit on the Lakhdar and Ait Sigmine on the N'rzef.

Further studies are being carried out.

Investment (excluding hydraulic plant)

HEADING	IN THOUSANDS OF DIRHAMS								
	Total	Before 1968	1968	1969	1970	1971	1972	After 1972	Total 68-72
Studies and exploration	7,000	1,500	2,000	2,000	1,000	500	-	-	5,500

5.3. - DECHRA EL OUED DAM - STUDIES -

Geographical location : On the Oum-Er-R'bia 35 km south west of Khenifra (Province of Beni-Mellal)

Specification : Dam 80 to 85 m high in principle made of concrete.

Total retention volume 500 to 600 million m3.

Electric power station (O.N.E) 60 Mw approx.

Purpose : Irrigation of an area of 30 to 40,000 hectares in the Tadla.

Electricity production (150,000,000 Kwh)

Study Situation : Studies previously carried out between 1948 - 1956.
Additional work needed to bring up to date.

Investment

HEADING	IN THOUSANDS OF DIRHAMS							
	Total	Before 1968	1968	1969	1970	1971	1972	After 1972	Total 68-72
Studies and exploration	6,000	2,000	-	-	-	1,000	1,000	2,000	2,000

5.4. THE DAM IN THE N'FIS GORGES - STUDIES -

Geographical location	: In the Oued N'Fis gorges approx. 50 km south west of Marrakesh and 5 km north east of Tagadirt N'Bour (Province of Marrakesh)
Specification	: Concrete dam, on principle, up to and even exceeding 100 m in height (retention capacity at this height : approx. 90 million m3)
Purpose	: Irrigation of the Haouz plain (extension of the N'Fis area already irrigated by the Cavagnac Dam) Possible production of electric power.
Study Situation	: Preliminary studies have already been carried out. Further studies are to be continued and the draft scheme finalised.

Investment

HEADING	IN THOUSANDS OF DIRHAMS								
	Total	Before 1968	1968	1969	1970	1971	1972	After 1972	Total 68–72
Studies and exploration	3,000	500	200	1,100	600	500	100	-	2,500

KINGDOM OF MOROCCO

PRIME MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING
AND THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 3

NATIONAL DEVELOPMENT

MARCH 1968

NATIONAL DEVELOPMENT

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NATIONAL DEVELOPMENT

The National Development was instituted in 1961 with the object of :

a) mobilising the rural under-employed and directing their work capacity towards productive projects;

b) associating the population with State development programmes by ensuring their participation in the drawing up and implementation of projects of national or local interest;

c) slowing down the drift from the land by improving the standard of living and production in the less privileged areas and promoting the social welfare of the inhabitants of these regions;

d) developing marginal areas by providing work for the maximum amount of labour at a minimum amount of financial and technical investment.

A very flexible administrative organisation was accordingly set up for this purpose. National Development is directly under the responsibility of HIS MAJESTY THE KING who presides over the Higher Planning and National Development Councils. The policies, directives and programmes are prepared by a small team of advisors assisted by a Technical Committee on which all the consumer services are represented. At provincial level the Governor presides over a Provincial Council consisting of all the local authority representatives, the regional experts and the elected representatives of the population.

This system enables programmes to be drawn up jointly by the experts and the population, certain projects being proposed by the latter and other by the authorities.

Financing is provided either by means of a special account administered by the National Development (projects, second part) or direct from the normal budgets of the Ministries, Offices or Provinces (projects, first part).

Gifts of grain from abroad have enabled a proportion of wages (equivalent to 2 DH a day) to be paid in kind.

I. - EVALUATION OF THE THREE YEAR PLAN

The National Development achievements under the Three Year Plan and their cost are summarised in the following tables:

- Number of National Development working days over the Three Year Plan by type of operation :

	(1,000)
- Waterways and Forests (S.P.R., Reafforestation etc.)	10,875
- Minor water engineering projects	11,742
- Community and municipal equipment	9,860
- Public works (Roads)	21,469
TOTAL	53,946

- Number of National Development working days and expenditure under the Three Year Plan by budgetary origin:

(1,000)

	Number of working days (in 1,000)	Expenditure (in 1,000 DH)
First Part	20,550	45,316
Second Part	33,346	70,631
TOTAL	53,896	115,947

II - POLICY TRENDS

These achievements are by no means inconsiderable. Furthermore, a fund of experience has been acquired and many problems and possibilities, scarcely envisaged in 1961, have now been dealt with. National Development over the Five year period 1968-1972 will therefore be directed towards:

- increasing the number of its workers in order to meet the increasing need for employment;

- widening and improving its range of action by research and the application of techniques specially adapted to its own form of intervention and by selecting the most economic projects;

- Improving its management to ensure the profitability of the projects and investments and to simplify its administrative procedures;

- incorporating its activities within the framework of an integrated development programme taking into account both local needs and conditions and national priorities;

- making the population aware that their social well-being depends on the work they devote themselves to their economic development.

This question of further employment and extending the scope of the National Development will now be dealt with at greater length.

1 - Extending the scope of National Development and increasing employment under it

1.1. - Increased employment

20 million working days (in 1967) is equal to the employment of 100,000 men for 200 days of the year. In order to keep pace with the rise in the population of working age, taking into account the demographic pressure, the number of working days will need to be increased each year by at least 3 million. Such an increase moreover would only maintain the present level of employment.

Both experience and an investigation carried out in 1964 have shown that under-employment in the traditional rural sector is difficult to determine, primarily because of the time devoted to agricultural activities.

The first Five Year Plan in 1960-1964 assessed available employment at 150 million male days, whereas the investigation only showed 60 million. We know that the investigation underestimated availability and that towns were not included in it; it may therefore be assumed that the number of utilisable days in 1967 was some 80 million. National Development therefore absorbed approximately a quarter of the rural under-employed. To consider solely the numerical aspect of employment, however, would lead unemployment bureaux to attempt by any means at all to employ the maximum number of bodies.

1.2. - Extending its range of activities

National Development programmes should be more closely integrated with those of the technical departments and provincial services coming under their own budgets than has been the case in the past.

- Financially speaking, 20 million working days represents an investment chargeable to the State of more than 50 million DH, plus the equivalent of 40 million DH in grain, that is a total of 90 million DH.

- Economically and technically speaking, the use of such a sum as 90 million DH requires the most careful attention. In fact, in conjunction with the other resources from the provincial budgets, such a sum enables an extensive programme of provincial development to be carried out.

2 - National Development intervention schemes

The main fields where National Development can intervene effectively are the following:

- agriculture and allied activities
- communication systems
- urban and rural housing
- tourist development schemes

A distinction, in fact, should be made between rural and urban sectors. Projects concerning the rural sector are more effective if their planning is co-ordinated and complementary. In towns, apart from urban and touristic development, National Development schemes are fairly limited.

2.1. - The rural sector

This itself should be considered under two aspects:

a) The least privileged areas: these are marginal in two respects; economically because they are still very autarchic and geographically because they embrace practically all the border provinces and the Mediterranean coast provinces. Some 50% of Morocco's rural population live in this vast area. It also harbours the largest reserve of potential emigrants.

This is the field in which National Development plays a privileged part and in these regions it is the main manifestation of State activity. In view of the imperatives and restrictions, both immediate and medium-term, this situation will alter little for a long time to come.

The National Development system should ensure an improvement in output, reduction of under-employment, a better standard of living and a change of outlook. These may well be ambitious aims but there is no alternative. They can only be achieved to a less or greater extent.

b) National Development intervention in the high potential areas should nonetheless not be overlooked. It can participate in the Regional Office projects at development and internal equipment stage (digging canals, stone clearance, plantations etc.) and complement the activities of these Offices by upstream protection (S.P.R.), or by developing outlying areas. It also offers the possibility of extending urban development in the rural centres to be established or of developing the irrigated regions.

c) Productive programmes in the rural sector should not be separated from infra-structure projects. A programme of communication systems should therefore be conceived as a function of agricultural production or tourist prospects; centres should also be developed as a function of the development projects planned. Selection of schemes should take account of the major nationwide projects, the labour available, the geographical and natural conditions, the relative degree of development, the financial and savings resources and the technical and administrative facilities. National Development cannot be divorced from "Economic Development".

2.2. - The urban sector

National Development interventions in the urban sector are too often confined to the unemployment problem; the cost of work is generally prohibitive and workers' output is very low. Two spheres of action however are planned. An urban development and housing programme, particularly in the secondary sectors bordering on the agricultural areas, and a development programme for tourist sites, access to them and their infra-structure. More "Youth Camps", similar to the experimental camp at Bou Areg, will be set up. National Development labour in the large towns will be used mainly to eliminate the shanty-towns.

2.3. - Integrated operations

Priority will be given to integrated development schemes. Wherever possible an attempt will be made to combine schemes aimed directly at production (Plantations, soil improvement) with those indirectly connected with production (minor water engineering schemes, infra-structure and agricultural equipment), the social schemes (housing, community equipment, etc.) being considered as secondary and only complementary, bearing in mind the need for increased production and the limited resources available both in credit and technical grades.

III - THE PROGRAMME

1 - Programme of action

Taking account both of the population growth and the means and facilities for development, some 123 million working days should be obtained. This programme can be broken down accordin to the type of work and the financing authority.

a) By the type of work

(in millions of working days)

Agricultural development	73
Road infra-structure	33
Municipal and community equipment	17
TOTAL	123

b) By the financing authority (in millions of days)

- Technical departments' Budgets	72
- Provincial and municipal Budgets	15
- Special National Development Account	36
TOTAL	123

2 - FINANCING THE PROGRAMME

a) Overall cost for 123 million working days

(in millions of DH)

Wages in cash (2 DH per day)	246
Subordinate staff	65
Materials and transport	140.7
TOTAL	451.7

The following wages in kind (equivalent to 2 DH per day) should be added to this cash amount :

615,000 tons of corn

b) Financing

Only a part of these 451 million DH, however, constitutes expenditure for which National Promotion is responsible as the wages in cash, the staffing and the necessary equipment for the first stage of the projects (or 87 million working days) are incorporated under the budgets of each department concerned.

Only 119.7 million DH will be incorporated under the National Development account which constitutes the second stage project or 36 million working days. This sum is broken down as follows:

(in millions of DH)

Wages in cash	72.0
Staffing	15.0
Materials	32.7
TOTAL	119.7

GENERAL SUMMARY

1968-1972

	Working days (in 1000)	Wages(1) (in 1000 DH)	Other costs (in 1000 DH)	Total (in 1000 DH)
A. MINISTRY PROGRAMMES (1st stage)				
1-AGRICULTURE	55,300	143,500	73,600	217,100
a-Waterways and Forests	20,000	51,000	18,000	69,000
Reafforestation	10,000			
S.P.R.	7,500			
Opening up tracks	2,500			
b-Derro	6,000	16,000	8,000	24,000
Reafforestation	1,000			
S.P.R.	900			
Tracks	400			
Rural Equipment	50			
Minor water engineering works	950			
Forestry projects	2,700			
c-Small- and medium scale water-engineering projects	10,000	26,000	14,000	40,000
d-Regional Offices	16,000	42,000	28,600	70,600
e-Rural Equipment	2,800	6,000	4,000	10,000
f-Land improvement	500	2,500	1,000	3,500
2-PUBLIC WORKS	15,000	37,500	17,000	54,500
3-URBAN HOUSING	1,400	3,500	1,400	4,900
SUB TOTAL A	71,700	184,500	92,000	276,500
B. PROVINCIAL AND MUNICIPAL BUDGETS				
a-Provincial budgets Tracks, building minor water engineering schemes	10,000	26,000	10,500	36,500
b-Municipal budgets Roads, etc. terracing	5,000	13,500	5,500	19,000
SUB TOTAL B	15,000	39,500	16,000	55,500
C. 2ND STAGE OF PROJECT a-Equipment and development Minor water engineering projects and development	15,000	38,000	14,500	52,500
b-Road infra-structure	13,000	31,000	12,200	43,200
c-Equipment of Centres	8,000	18,000	6,000	24,000
SUB TOTAL C	36,000	87,000	32,700	119,700
GRAND TOTAL	122,700	311,000	140,700	451,700

(1) including staffing.

IV - MEASURES

The National Development's stake, its share in the development and equipment programmes of several of the technical services and its resulting financial,efforts necessarily demand the improvement and eventually the modification of the means and rules under which it operates its aid programmes.

The principles in fact which define the aims and field of application of National Development introduced a new element in the conception and execution of the work programmes undertaken by the State and the Communities which, over the past period, posed many and difficult problems, some of which have yet to be fully resolved.

1. - Technical

A number of projects (medium water engineering schemes, derivation dams, housing, S.P.R.) proved that the N.D. system went beyond the "do-it-yourself" stage, resulting in considerable technical achievements at competitive costs. This experience has also proved the value and need for a minimum amount of preliminary technical studies. These studies should be conceived and executed as a function of the construction method, in other words unskilled labour and as few technicians as possible to arrive at a true system of methodology.

The labour used by National Development is not always skilled and can therefore only be employed on relatively simple work requiring no great special skill and on sites which can be easily supervised and controlled. Generally such labour is more efficient on the large sites or on the small and medium grouped sites, than elsewhere.

Navvying, the extraction of building materials and simple masonry work, such as on small and medium scale water engineering schemes, the preparation of ground for tree planting, the protecti of the soil against erosion, the opening up of roads, paths and tracks are some of the work carried out under National Development programme.

The technical departments will draw up a list and description of the work coming under National Development.

But in order to utilise the inadequately employed labour potential under the best economic conditions and to widen the N.D. field of application, action must be taken on two levels:

- at research level;
- at implementation level.

11 - At research level

Technical departments should take into account the "fact" of National Development and use it for all suitable work, using where necessary the appropriate techniques.

The departments, used to dealing with companies, should draw up easy-to-consult technical specifications for National Development projects, laying down specifically a labour working schedule and a supplies schedule so that the programme can be systematically planned.

In studying any particular project several methods of execution can be proposed; provided costs are equal preference should be given to the one employing the most labour. Where there should be a difference in cost, additional labour costs in certain cases can be offset by the saving in foreign currency made in buying and operating imported machinery or equipment.

Certain public authorities may consequently considerably increase their participation in National Development schemes, the range of application of which will be extended accordingly.

12 - At implementation level

Simplified techniques involving the minimum of skilled labour or new simple-to-operate equipment will be needed; or again any provisions to facilitate the labourers' tasks and thereby reducing the need for painstaking technical control or the use of improved traditional methods using local materials.

The technical departments concerned should also prepare technical handbooks for National Development use providing simple, standard work plans which specify the method of construction.

Increase in productivity is one of the key factors in the profitability of projects. This increase can be achieved by:

- better site organisation and regular payment to workers;
- better supervisory staff;
- fixing elementary day to day jobs. This step has already been recommended in the basic National Development instructions; it should be stressed again, imposed at all sites and rigorously observed. This is the only way to achieve at National Development sites a minimum productivit which will ensure an acceptable profitability.

A specific collective task, paid for by a contract price whatever the duration of the work, could also be envisaged.

The technical services should draw up rates taking into account the limitations of National Development labour.

An experimental association of private enterprises in the management of sites is feasible as these contractors, frequently already working for Government authorities, have at their disposal:

- the senior staff which the Government lacks;

- working methods which can and should be applied to National Development sites.

- the necessary equipment which is often essential to assist manual labour.,

Furthermore the technical problems and those concerned with the training of supervisory staff and skilled workers cannot be dissociated one from the other.

1.3. - Training of supervisory staff and skilled workers

Many National Development projects have run up against the problem of the lack of senior staff and skilled workers, frequently resulting in inadequate productivity and a quality of work leaving much to be desired.

The training of senior staff and skilled workers will therefore be one of the constant pre-occupations of the authorities using the National Development programmes.

Two solutions are simultaneously possible:

- provincial training courses given by technicians on the spot, with a pre-course and further training at well managed sites.

- Courses at contractors' sites.

2 - Administration and Accounts

Technical limitations are not the only obstacles to the extension of National Development. The main obstacle is the difficulty of ensuring regular payment to workers. This delay is due:

a) to the lack of manager-accountants and their training;

b) to the unsuitability of the State accountancy system to a programme such as National Development. The procedure for advances in State bookkeeping is quite an exceptional way of settling State expenditure, whereas for National Development this is the normal way of carrying out investment.

KINGDOM OF MOROCCO

PRIME MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING
AND THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 4

TOURISM

MARCH 1968

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TOURISM

I - SITUATION ON THE EVE OF THE FIVE YEAR PLAN

Tourism is one of the major priorities of the Five Year Plan. A very attractive natural environment (countryside and climate) and a strong potential demand (from European and American markets) provide the background for the rapid growth of an industry particularly well suited to a country where capital is scarce and labour plentiful and where the effect on the rest of the economy is considerable.

The success achieved in this field by other countries with similar conditions is proof that Morocco's ambitions in this field are perfectly feasible. The necessary reception infra-structure will, however, have to be built and an adequate policy determined.

The Three Year Plan made some progress in this respect which, although limited, was valuable; further efforts are now needed. Several major equipment programmes and a start on the schemes to develop tourist areas are to the credit of the Three Year Plan; the latter's main value, however, lies in having mobilised the general interest and facilities and in having begun to channel and control the various schemes set up and in providing a firm foundation for a concerted and organised programme for the future. A Ministry of Tourism was set up under the Three Year Plan in 1965.

The total number of hotel beds built over the Three Year period was some 8,000. This building, however, was confined almost exclusively to luxury class hotels. Consequently the expenditure on beds built was higher than the estimates. 400,000 tourists came to Morocco in 1967, excluding transit tourists.

The all-embracing aspect of the objectives outlined explains the only partial realisation of the Three Year Plan.

Table 1: Evaluation of the Three Year Plan

	Three Year Plan Estimates	Achievement	Percentual achievement compared with target
Hotel investment in millions of DH	327	295	90%
Expenditure on infra-structure	57	42	74%
Total investment in millions of DH	384	337	87%
Jobs created	8,000	1,500	19%

Thus much remains to be done not only to bring the hotel industry's capacity to a level able to meet the demand but to make this industry competitive in terms of both prices and quality of service given. The lack of qualified staff, the inadequate holiday and reception infra-structure and, in certain cases, transport facilities as well, a certain slackness in hotel management and, finally, the lack of adequate publicity abroad are all major handicaps which the Five Year Plan will have to overcome.

II - POLICY TRENDS AND OBJECTIVES

1 - General Policy

The tourism policy under the Five Year Plan will be geared to developing middle grade hotels in order to attract a wider range of tourist. The State will continue to play a major role in this field by promoting development areas and by replacing the private sector where short-term commercial profitability cannot be guaranteed. The State will attempt to set up model units with a policy of competitive management concerning both the prices charged and the quality of service given.

The policy of developing certain areas concentrating effort in the regions particularly well equipped for tourism and setting up a fully developed group of facilities (reception, hotels, holiday equipment) will be continued and extended. The priority development areas of Agadir, Al Hoceima, Smir and Tangiers will form the basis of this development programme.

Added to this will be a series of measures on management and prices, financing, occupational training, internal reception facilities and publicity abroad.

2 - Objectives

The Five Year Plan aims to attract as many tourists as possible to Morocco, taking into account the trend of internationa demand and Morocco's reception possibilities. This target inevitably involves a considerable degree of uncertainty as its achievement depends on a number of factors, some of which are outside Morocco's control and therefore difficult to foresee.

Hand-in-hand with this target figure for tourists is a programme for building the accommodation which will in theory be needed for reception of these tourists. In fact, however, the relation between the increase in the numbers of these tourists and the increased accommodation capacity is very flexible as the anticipated utilisation rate of this accommodation is very uncertain.

The target therefore in terms of hotel accommodation depends relatively little on the inevitable uncertainty concerning the number of tourists.

Finally, two important factors for economic equilibrium are calculated on the basis of these evaluations: first the revenue derived from tourism and secondly the jobs created by it.

2.1. - Overall number of tourists

Evaluation of the average annual growth rate of the number of tourists for the Five Year period, which forms the methodological basis for the hotel targets and facilities to be set up, is based on analysis of the factors likely to influence the growth of tourism.

The increase in the number of tourists throughout the world shows a rise of 60% over the five years 1962-66, or an average annual rate of 12%, ranging from 8 to 15% according to the year. The rate of growth in Mediterranean countries seems to be at the top of the league and this is confirmed in Morocco's case by the national statistics which show an increase of 108% over the period (from 200,000 to 420,000), or 21% a year. Taking only those tourists staying in the country into account (excluding transit tourists) the rate of growth is an average of 16% a year.

Morocco's proximity to the densely populated and high income countries of Western Europe and the world's great potential growth of tourism should therefore enable a high rate of growth of some 15% to be achieved and to set as a target for 1972 the reception of one million holiday tourists or more than double the present figure.

In view of recent developments, however, this target is very ambitious; it presupposes tourism receiving a new impetus in accordance with the Government's aim to develop this sector.

If transit tourists, for whom a constant rate of increase of 10% has been adopted, are added to the numbers of tourists staying in the country we read an overall figure in 1972 of 1,150,000 tourists.

Table 2: Increase in the number of tourists in recent years and Five Year Plan targets.

(in thousands)

Year	Tourists staying in the country	Transit tourists	Total
1964	380	80	460
1965	380	100	480
1966	420	100	520
1967	400	100	500
1968	550	110	660
1969	640	120	760
1970	740	130	870
1971	850	140	990
1972	1,000	150	1,150

2.2. - Accommodation capacity

a) overall level

Having fixed the target for the number of tourists, the amount of accommodation, measured by number of rooms or beds in the hotel and auxiliary sector and as a function of technical criteria such as the utilisation index for accommodation facilities needed for adequate reception of these tourists, should be determined.

Comparison of the existing capacity with the needs of the final year of the Plan will determine the total building required over the five years of the Plan.

The overall calculations based on an average stay per tourist of 9 days and on a hotel filling rate of 34% (excluding home demand) lead to the following targets being adopted for the period 1968-1972. The provision during the Plan of regular statistics of hotel night accommodation provided will give a much more accurate picture for estimating the number of beds required.

Table 3: Number of beds and investment

	Number of beds	Investment (in millions of DH)
Hotel beds	28,000	671
Holiday Camp beds	2,000	
Camping, caravan sites	10,000	20
TOTAL	40,000	691

b) Breakdown by category

Achievement of the overall target for building accommodation facilities should be accompanied by a modification of the accomodation structure; this should be replanned to meet the needs of the clientele.

A survey made in July 1966 showed that the majority of tourists staying in Morocco are in the "middle class" socio-economic groups. The present structure of Morocco's existing hotels has a higher proportion (45%) of luxury class hotels (4 and 5 star) than the average in other tourist countries (only 40%)

To this quantitative imbalance (see table 4) there is also added the quality factor, the most recent and up-to-date buildings being confined almost exclusively to the luxury class hotel, whereas the smaller and medium class hotels are frequently very old and out-of-date.

Table 4: Percentual breakdown of hotels by category

Category	1 and 2 star	3 star	4 star	5 star	Total
Present structure	28%	27%	27%	18%	100%
Structure planned for 1972	25%	35%	26%	14%	100%

In order to remedy this imbalance and give greater emphasis to the average class of accommodation, the Five Year Plan fixed a target for the breakdown by category of the number of beds to be built of 64% for 1 to 3 star hotels, 25% for 4 star and 11% for 5 star hotels.

This presupposes an incentivation for the agents in the economic sector not directly connected with the Plan (Moroccan and overseas private investors and, to a certain extent, semi-official undertakings) to attract investment in the desired category by means of differential advantages (see below for the measures in question).

c) Breakdown by region

The imperatives of the tourist sector itself and the more general ones of land development provide the factors for the breakdown by tourist region. The Five Year Plan differs little from the Three Year Plan in the main lines of its policy on planning the growth of sectors in space and which can be stated in the following terms:

i) The setting up or development of poles of attraction meeting the needs of potential customers as revealed by the market surveys. These priority development zones (Z.A.P.) set up under the Three Year Plan play a fundamental part in the estimates of this Five Year Plan. The majority of the investment in accommodation and practically all the investment in infra-structure will be concentrated over the period 1968-1972 in these Z.A.P. already mentioned: Agadir, Al Hoceima, Smir and Tangiers.

ii) Elimination of seasonal bottlenecks existing in certain peak areas, where potential demand is already (or very shortly) in excess of the reception capacity, over sufficiently long periods in the year as to necessitate new investment. These areas are mainly in the Imperial Cities of Fez and Marrakesh and also Casablanca on the one hand and in the present Far South poles on the other.

The priority development zones and the above mentioned peak seasonal areas, together with a few less important areas, are the tourist impact zones which should be developed.

Bearing this policy in mind, the investment required over the five year period can be broken down as follows:

Table 5: Breakdown of bed accommodation

Zone	Situation at the start of the Plan	Plan's building forecasts	Planned situation on completion of the plan
Tangiers	3,492	8,532	12,024
Smir	1,349	4,833	6,182
Al Hoceima	1,744	1,800	3,544
Agadir	1,144	5,654	6,798
Marrakesh	1,970	3,130	5,100
Meknes	1,104	120	1,224
Fez	1,046	1,640	2,686
Rabat	1,658	p.m.	1,658
Casablanca	2,898	2,114	5,012
Far South	1,250	1,400	2,650
Others	2,125	960	3,085
TOTAL	19,780	30,183	49,963

d) Auxiliary hotel accommodation

Part of the tourist demand is directed towards auxiliary accommodation rather than to hotel accommodation proper: camping and caravan sites. The number of sites available for the latter is at present very limited and only accommodation for 700 at Azemmour, Oualidia and Tamaris, provided under the Three Year Plan, is now available.

One of the targets of the Five Year Plan is therefore to provide 10,000 first grade places, broken down as follows:

Table 6: Auxiliary hotel accommodation and cost

Region	Number of camping sites	Number of places	Investment (in millions of DH
Z.A.P.	9	4,000	8
Large towns	4	1,000	2
Others	16	5,000	10
TOTAL	29	10,000	20

2.3. - Investment in hotel and auxiliary accommodation

By grouping the investments in the tourist areas. (Z.A.P. large towns, Far South and Others) a picture can be obtained of the extent of the investment needed in each region.

Table 7 shows the breakdown of the number of beds to be built and the corresponding investment by region.

Table 7: Breakdown of investment in hotel accommodation

Region	Number of beds	% of beds by regions	Investment (in millions of DH)	Percentual investment by region
Z.A.P.	20,819	69%	417	62%
Large towns	7,004	23%	211	31%
Far South	1,400	5%	26	4%
Others	960	3%	17	3%
TOTAL	30,183	100%	671	100%

By combining the investment in hotels and auxiliary accommodation a total figure of 691 million DH is obtained.

2.4. - Revenue from Tourism

Estimates of tourist revenue are based on three factors:

- the number of tourists (targets fixed above)
- average expenditure per day per tourist
- average length of stay.

The figure for the average expenditure per tourist and per day is calculated at approximately 60 DH by the end of the Plan and this implies a considerable drop compared with present average expenditure. This drop is consistent with the policy of encouraging the "average social class" type of tourist and with the policy of rationalising hotel management which is aimed at reducing costs.

The average length of stay of tourists in Morocco is approximately 9 days and the revenue figure for 1972, consistent with the tourist target, is 555 million DH, including an evaluation of the expenditure by transit tourists.

Table 8: Total revenue from tourism (in millions of DH)

Year	Revenue from holiday tourists	Revenue from transit tourists	Total revenue
1968	395	11	406
1969	440	12	452
1970	475	13	488
1971	505	14	519
1972	540	15	555

2.5. - Jobs created

In conjunction with the inflow of foreign currency it provides, a tourist industry with high manpower needs adds to the population's employment facilities.

The total number of jobs directly created by carrying out the target building programme of 30,000 beds under the Five Year Plan is some 8,800, 2,500 of which are supervisory grades.

Table 9: Employment created under the Five Year Plan in the hotel industry

	Foreigners	Moroccan	Total
Supervisory Staff	800	1,800	2,600
Junior Staff	-	6,200	6,200
Total	800	8,000	8,800

III - PROGRAMME OF ACTION

It is planned to build 30,183 hotel beds and 10,000 camping and caravan places over the period 1968-1972 mainly in the priority development zones (Z.A.P.) of Tangiers, Smir, Al Hoceima and Agadir In 1968 the completion operations of the Three Year Plan in the tourist sector will be added to these new development and accommodation projects.

Finally the question of providing occupational training for the supervisory staff and workers in the tourist sector will be resolved by setting up three new hotel training schools costing 4,483,000Dh incorporated under the Training of Senior Grades budget, to which will be added other forms of training.

Table 10 summarises these schemes and their cost, first overall and then the proportion chargeable to the State.

Table 10: Programme of Action

(in 1,000 DH)

Scheme	Total amount	State Expenditure
Hotel accommodation	686,131	109,590
Auxiliary accommodation	22,800	12,400
Infra-structure and development	49,100	49,100
TOTAL	760,031	171,090

1 - Completion of the Three Year Plan operations

Certain operations in the tourist sector begun under the Three Year Plan will be completed in 1968. These concern mainly the modernisation and equipment of State accommodation facilities as shown in the following table.

Table 11: Completion of the Three Year Plan operations

(in 1,000 DH)

Scheme	Amount
Hotel accommodation	
- hotels and overnight lodging facilities	11,500
- specific operations for the development and equipment of State accommodation facilities	5,600
Auxiliary accommodation	
- camping and caravan sites	2,800
Development	
- historic monuments - Son et Lumière	2,100
TOTAL	22,000

2 - Accommodation

All the projects making up the investors programme of action in the hotel industry account for a total of 30,183 beds. This target will be achieved through the participation of promoters in the public, semi-official and private sectors.

The table below shows the targets sector by sector and by grade of hotel.

Table 12: Breakdown of accommodation by promoter and by category

(in number of beds)

Category of hotel promoters	5 star	4 star	3 star	1 & 2 star	Total	% by promoter
Public sector	-	400	1,140	200	1,740	6 %
Semi-official sector	650	3,656	4,880	2,450	11,636	35 %
Private sector	2,700	3,662	6,947	3,498	16,807	59 %
Total	3,350	7,718	12,967	6,148	30,183	100 %

Tables 11, 12 and 13 show the list of projects by sector and their main characteristics.

Table 13: List of projects of the public sector (Ministry of Tourism)

Location	Category: No. of stars	Number of beds	Overall cost (in 1,000 DH)	Jobs created	Start of work	Completion of work
TANGIERS (3-star chain)	3	120	2,100	25	70	72
SMIR (p.m.)	-	-	-	-	-	-
AL HOCEIMA	3	300	6,750	74	70	72
	2	200	3,500	41	69	71
TOTAL	-	500	10,250	115	-	-
AGADIR	4	400	10,000	174	68	70
FAR SOUTH (3-star chain)						
Agdz	3	120	2,100	25	70	72
Goulimine	3	120	2,100	25	70	71
Kelaa	3	120	2,100	25	68	70
Ksar-Es-Souk	3	120	2,100	25	70	71
Taroudant	3	120	2,100	25	68	70
Tiznit	3	120	2,100	25	69	70
TOTAL	-	720	12,600	150	-	-
GRAND TOTAL		1,740	34,950	404		

As will be seen the State will build 1,740 beds or 6% of the total number of beds to be provided.

Table 14: List of projects of the semi-public sector

Location	Category: No. of stars	Number of beds	Overall cost (in 1,000 DH)	Jobs created	Start of work	Completion of work
ANGIERS	4*	300	10,000	130	68	70
	4	120	3,300	52	68	69
	v.v.4	600	10,000	261	68	69
	3	250	5,400	62	69	71
	2	220	3,650	45	69	71
	2	200	3,500	41	69	71
	v.v.2	450	5,700	92	68	69
TOTAL		2,140	41,550	683		
IR	4*	200	4,000	87	67	70
	4	250	6,000	109	69	71
	4	180	4,500	78	68	70
	4	250	5,500	109	68	70
	3	300	5,000	74	68	70
	Appt 3	300	4,000	-	68	69
	Appt 3	300	4,000	-	69	71
	v.v.3	600	7,500	147	68	69
	v.v.2	500	8,750	102	69	71
	2	200	3,500	41	69	71
TOTAL		3,080	52,750	747		
HOCEIMA	3*	300	6,750	74	69	71
	2	200	3,300	41	69	71
	2	200	3,500	41	69	71
TOTAL		700	13,550	156		
DIR	4*	120	2,800	52	67	69
	4	376	9,000	164	67	69
	3	200	4,300	49	69	71
	3	200	4,300	49	69	71
	3	200	4,300	49	69	71
	Appt 3	550	9,600	-	69	71
	2	100	1,750	20	69	71
TOTAL		1,746	36,050	383		
RAKESH	4*	120	3,000	52	67	69
	4	300	9,000	130	67	69
	3	120	2,000	30	68	69
	3	250	5,400	62	69	71
	3	120	2,100	25	70	72
TOTAL		910	21,500	299		

Table 14 (continued)

MEKNES (p.m.)						
FEZ	4* 3 3 3	120 120 150 120	2,670 2,000 3,400 2,100	52 30 37 25	68 68 71 70	70 70 72 72
TOTAL		510	10,170	144		
RABAT (p.m.)	-	-	-	-	-	-
CASABLANCA	5* 4 3	650 360 120	40,000 9,918 2,100	325 157 25	68 67 70	70 69 72
TOTAL		1,130	52,018	507		
FAR SOUTH						
FOUM Z'GUID	3	120	2,100	25	70	72
KSAR ES SOUK	4	120	2,800	52	67	69
MIDELT	3	120	2,100	25	69	70
OUARZAZATE	4	120	2,800	52	67	69
TAZARIN	3	120	2,100	25	70	72
TAN-TAN	2	80	1,300	16	68	69
TOTAL		680	13,200	195		
OTHERS						
BENI MELLAL	4*	120	3,000	52	67	69
CHAOUEN	2	100	1,100	20	68	70
EL JADIDA	3	200	3,500	49	68	70
KENIFRA	2	100	1,100	20	68	69
OUEZZANE	2	100	1,100	20	68	69
TOTAL		620	9,800	161		
GRAND TOTAL		11,636	252,688	3,300		

Table 15: List of projects under the private sector

Location	Category: No. of stars	Number of beds	Overall cost (in 1,000 DH)	Jobs created	Start of work	Completion of work
TANGIERS	5	600	25,500	300	68	69
	4	300	7,100	130	68	69
	4	338	7,400	147	68	71
	4	200	3,000	87	69	71
	4	218	5,550	95	68	69
	4	276	9,220	120	67	69
	3	200	2,600	49	68	69
	3	500	9,416	123	69	71
	3	300	4,500	73	67	69
	2	350	4,000	74	68	70
	2	50	257	10	67	68
	v.v.1	400	1,600	54	70	71
	5	300	9,000	160	70	72
	3	150	3,400	37	69	71
	3	150	3,400	37	70	72
	3	150	3,400	37	70	72
	3	250	5,600	62	70	72
	3	580	10,150	145	68	72
	3	250	5,600	62	70	72
	2	150	2,600	31	70	72
	2	150	2,600	31	70	72
	2	200	3,500	42	70	72
	2	200	3,500	41	69	71
TOTAL		6,272	132,893	1,947		
SMIR	4	300	6,000	130	68	70
	3	300	4,800	75	70	72
	3	200	4,500	49	70	72
	v.v.3	600	11,000		68	70
	Appt 2	200	3,100		70	72
	3	153	1,400	138	67	68
TOTAL		1,753	30,800	392		
AL HOCEIMA	3	100	1,650	25	70	72
	Appt.3	300	5,250	-	69	71
	2	200	3,500	41	70	72
TOTAL		600	10,400	66		

Table 15 (continued)

AGADIR	4	300	12,000	130	68	70
	4	300	9,000	130	68	70
	4	500	9,000	218	68	70
	4	160	3,500	70	68	70
	3	180	3,900	45	67	69
	3	400	9,000	100	70	72
	3	300	6,750	75	69	71
	Appt 3	380	6,650	-	70	72
	2	68	850	14	67	69
	2	200	3,500	41	70	72
	2	200	3,500	41	70	72
	2	200	3,500	41	70	72
	2	120	2,100	25	70	72
	2	200	3,500	41	70	72
TOTAL		3,508	76,750	971		
MARRAKESH	5	500	20,000	250	67	69
	4	210	4,500	91	67	69
	4	300	8,500	130	68	70
	4	160	4,000	70	68	70
	3	300	4,500	75	68	70
	3	250	5,600	62	70	72
	2	200	3,500	41	70	72
	2	150	2,600	31	69	71
	2	150	2,600	31	70	72
TOTAL		2,220	55,800	781		
MEKNES (p.m.)						
FEZ	5	500	20,500	250	67	69
	3	180	3,500	45	68	70
	3	150	3,400	37	69	71
	3	200	4,500	49	70	72
	2	100	1,750	20	70	72
TOTAL		1,130	33,650	401		
RABAT (p.m.)						
CASABLANCA	5	800	32,000	400	67	70
	3	184	3,600	46	68	70
TOTAL		984	35,600	446		
FAR SOUTH (p.m.)						
OTHERS						
EL JADIDA	4	100	3,400	43	69	71
MOHAMMEDIA	3	120	2,000	30	68	69
ATLANTIQUE						
not specified	3	120	2,100	30	70	72
TOTAL		340	7,500	103		
GRAND TOTAL		16,807	383,393	5,102		

3 - Development and infra-structure

3.1. - Development of the Z.A.P.

The need was evident at the start of the Three Year Plan to set up priority development zones (Z.A.P.) and the regions of Tangiers, Smir, Al Hoceima and Agadir over the 1965-67 period absorbed almost the whole of the tourist development area efforts. The Five Year Plan marks the continuance of this policy, practically all the infra-structure investment being concentrated in these Z.A.P areas.

The total credit allocated for the development of these priority zones under the Five Year Plan amounts to 30 million DH. The total area developed between 1968-1972 will amount to 800 hectares representing approximately one quarter of the long-term development planned.

10 million DH for "additional development" will be added to the credit reserved exclusively for development of these zones; this "additional development" includes:

a) reafforestation projects at tourist sites (credits allocated to the Directorate of Waterways and Forests budget).

b) Establishing game reserves, fishing lakes and the appropriate facilities, totalling 5 million DH. A thorough study would indicate that these game reserves should be situated in the Ketama and Arbaoua areas in the north and Asni, Ouarzazate and Agadir in the South.

c) Development studies and possibly preliminary work carried out in the Ksar Sghir region which may be subsequently become a Z.A.P. The credits planned are 5 million DH.

3.2. - Specific schemes

In addition to these various development projects the State programme will include certain specific schemes, namely:

- preliminary surveys of zones
- tourist itineraries
- extension where practicable of airport runways for long distance aircraft
- improvement of telephone communications
- improvement and preservation of "sites and monuments".

a) Preliminary surveys of zones: credits of 3 million DH have been allocated to cover the cost of studies into the long-term expansion of the tourist infra-structure.

b) Tourist itineraries: the policy of organising tourist circuits will be pursued in conjunction with development of the Z.A.P. and the other tourist impact areas. The section on "Transport" shows details of these schemes, the total cost of which is approximately 10 million DH.

c) Apart from the airport at RABAT-SALE which can now take long haul aircraft, CASA-NOUASSEUR airport will be extended to international standards to provide intercontinental tourists with a reception and departure station for direct flights.

d) The trunk and international telecommunications network will continue to be improved. The Z.A.P. will be the first to benefit from this work, namely Smir, Restinga, etc...

e) Four million DH will be allocated for the improvement of "sites and monuments" under various schemes, mainly concerning the replanning and improvement of the Casbas in the far south.

4 - Occupational training

Occupational training is an obstacle, already found under the Three Year Plan, likely to hinder the growth of tourism unless adequate material and financial means are provided. Training schemes already begun under the Three Year Plan will therefore be continued and expanded under the Five Year Plan.

The need for Moroccan personnel consistent with the increased accommodation capacity has been calculated at 6,200 junior employees and 1,800supervisory staff.

4.1. - Training of supervisory staff

From the employment forecasts over the five year period for supervisory staff in the hotel and restaurant industry, the ideal target to be aimed at would appear to be 1,800 Moroccans trained. Hotel training in practice is usually by training "on the job". 800 supervisory staff from sources other than specific training schemes should therefore cover the personnel needs of general management, reception, administration, accounts, etc., thus leaving only 1,000 supervisory staff to be trained by the existing establishments and the various new training facilities needed.

It should not be overlooked, however, that the setting up of training establishments will meet long-term requirements but this should not result in a permanent surplus of qualified staff in any one category.

The initial considerable delay between the decision to set up a Hotel Trade College and the first graduates also explains, apart from the above mentioned considerations, the need for more flexible training facilities: a "teaching-hotel" under the public investment programme and the training of certain senior staff abroad.

a) Training forecast on the basis of establishments in operation at 31.12.67:-

Two colleges were in operation at 31st December 1967: one at RABAT, the other at TANGIERS.

The technical equipment at the Rabat College will be modernised and 210 senior staff will be trained there during the Five Year Programme.

The Tangiers College will be expanded: three new classes will be built enabling 240 senior grades to be trained during the five year period.

b) Training forecast on the basis of establishments becoming operational during the 1968-1972 period.

Considerable efforts will be made to provide hotel college training by setting up three new colleges at Fez, Marrakesh and Agadir.

Provided these colleges are built quickly and the training programme accelerated, the first graduates should be available in 1972. Taking into account the numbers dropping out during training the figure of 60 graduates per course has been adopted, on the basis of the Tangiers College, bringing the number of senior staff trained to 180.

c) Annual breakdown of senior grades trained.

Table 16: Estimated annual training of senior grades

Location of school	1968	1969	1970	1971	1972	Total
Rabat	30	50	30	50	50	210
Tangiers	-	60	60	60	60	240
Fez	-	-	-	-	60	60
Marrakesh	-	-	-	-	60	60
Agadir	-	-	-	-	60	60
TOTAL	30	110	90	110	290	630

A balance between the need (employment available) and the resources (in trained senior grades) will be achieved by means of other training facilities.

4.2. - Training of junior staff

The centre at Bengherir is at present training 1,200 junior staff a year. Between now and 1972 this centre will therefore have trained 6,000 staff.

The jobs available during the same period will amount to 6,200 the remining 200 junior staff therefore can be trained "on the job".

There is therefore a balance between employment available and the junior staff trained during the same period.

4.3. - Facilities for further training

The present system will be complemented by:

- setting up teaching hotels
- sending staff abroad
- the centre at Restinga.

The establishment of teaching-hotels will provide training and improvement facilities for senior staff and for the most promising graduates from the hotel trade colleges and the Benguerir Centre.

Two establishments, chosen from among the 3-star chain of State hotels to be built under the Plan, will provide the basis for the "teaching-hotel" training facilities. Sending staff abroad in the off-peak seasons will also provide considerable further training facilities. Finally the Centre at Restinga with its improvement courses will enable hotel trade staff to complete their training.

4.4. - Financing the occupational training programme

On the basis of a standardised unit cost of 1.5 million dirhams for a hotel trade college, fully equipped, and providing a three year course for classes of 60 pupils, all boarding, the total cost for building the three schools at Fez, Marrakesh and Agadir amounts to 4.5 million DH.

Financing modernisation of the college at Rabat and extension of the college at Tangiers are additional to this sum. These credits will be provided from the sums allocated to general education.

The cost of financing these training facilities is therefore as follows:

Table 17: Financing occupational training

(in 1,000 DH)

Location	Type of operation	Amount
Rabat	Modernisation and expansion of equipment	p.m.
Tangiers	Enlargement and equipment	p.m.
Fez	New establishment	1,500
Marrakesh	New establishment	1,483
Agadir	New establishment	1,500
Teaching-Hotels	Two State hotels operated for teach purposes	p.m.
TOTAL		4,483

Credits allocated for building new colleges thus amount to 4,483,000 DH.

IV - THE MEASURES

By comparison with developments over past years the target for tourist growth under the Five Year Plan according to the priority given to it, is very high. It presupposes that tourism in Morocco will grow at a comparable rate to that in the past in other countries. This target is not beyond our reach but it presupposes again that the infra-structure, reception and information facilities be competitive; this is an indication of how important are the measures and facilities associated with this programme.

If the latter are not quickly prepared and implemented the objectives of the Five Year Plan will be jeopardised. The policies to be promoted should have the following aspects:

- Improvement of the institutions and regulations;
- Development of tourist zones;
- Equipment and financing;
- Management and action on prices;
- Information and reception facilities;
- Leisure promotion.

1 - Improvement of the institutions and regulations

Instituting a large-scale tourist development policy presupposes an improvement to the whole of the structural and regulation system in the sense of standardisation and greater efficiency.

This improvement should take the following form:

- Co-ordination of administrative schemes;
- Simplfication of procedures.

1.1. - Co-ordination of administrative schemes

The setting up of the Ministry of Tourism under the Three Year Plan met the desire of the Government to organise specific programmes in accordance with the priorities given to this sector. The means available to the Ministry should be extended to enable it to work more effectively.

The schemes of the various Ministries, public and semi-official undertakings in respect of the tourist sector will be co-ordinated by the Ministry of Tourism.

The development studies are a very important factor in this co-ordination: the tourist impact areas should be incorporated under the Regional Development Plans which, in the long-term, form part of the overall development programmes.

1.2. - Simplification of procedures

In order to simplify and accelerate procedures, the Ministry of Tourism will replace the investor in all approaches to the other Ministries concerned for the purpose of eventual purchase of agricultural or State properties for development of tourism.

More generally, the administrative procedure at all investment levels (purchase of land, import of foreign equipment, obtaining equipment grants and credit, etc.) will be simplified.

2 - Development of tourist regions

The Royal Decree No. 1 092-66 of 17th Rebia 1 1387 (26th June 1967) with legal effect declaring that the development and utilisation for tourist purposes of the Bay of Tangiers is in the public interest, showed the need to provide a legal status for the development of the above mentioned area.

More generally, the need to provide priority development zones with a specific status is because of the following essential requirements:

- the need to define the geographical area in which the land is to be developed;
- the need to accelerate the procedure for expropriation;
- the need to provide this land with infra-structure according to a tourist development plan and which should be integrated in the regional land development programme.

From the fundamental importance attached by the Five Year Plan to the Z.A.P. derives the need to promulgate legal or implementation regulations concerning the areas of Smir, Al Hoceima and Agadir and to appoint the undertakings responsible for the implementation of the development programmes along the lines of the Société Nationale d'Aménagement de la Baie de Tanger (National Development Company for the Bay of Tangiers). To ensure a rapid start on these projects the organisation responsible for the control and execution of the development of each Z.A.P. should be appointed in 1968 and should immediately start or continue the investigations and work.

3 - Policy for financing accommodation facilities

Apart from its projects to establish the reception infrastructure necessary for the increased number of tourists, the State will adopt a policy of financing hotel investment. The table below shows the promoters and sources of capital and indicates the structure for the financing of these investments.

Table 18: Financing structure for the hotel projects

(in 1,000 DH)

Sources of financing, Promoter	State	Equipment grant	Credit	Own resources		Total
				Semi-official sector	Private sector	
Public sector	34,950	-	-	-	-	34,950
Semi-official sector	-	23,016	151,613	46,836	31,223	252,688
Private sector	-	34,524	229,045	-	119,824	383,393
Total	34,950	57,540	380,658	46,836	151,047	647,031
Percentage of financing sources	5%	9%	57%	7%	22%	100%

With regard to the auxiliary hotel accommodation, to which considerable efforts will be devoted during the 1968-72 period, the 10,000 camping and caravan places will be financed on the basis of 9.6 million DH by the State and 10.4 million by the local communities.

3.1. - Financial policy

The rôle of the State has two aspects: it intervenes directly and finances its own schemes (6% of the total number of beds) and indirectly it encourages investors.

The semi-official sector which accounts for 35% of beds only provides 7% of the financing out of its own funds. Similarly, the private sector which accounts for 59% of beds only finances 22% direct. Credit and the equipment grant provide the necessary complement to the private and semi-official sectors' own resources, or 66% of the total financing.

a) The State as direct investor.

The State is the promoter in the areas it develops; the public undertakings set up are thus model undertakings intended to attrac private investors by providing clients and providing an example by the management policies adopted. The State will also operate in the Far South replacing the private sector, as the cost of the infra-structure on various projects makes the yield from any investment in these regions uncertain. State schemes will be almost wholly concentrated on building medium class accommodation (2 and 3-star) serving as an example for other projects. In this respect the specific scheme for a chain of 3-star type hotels located in Tangiers, Morocco's seaport and in the Far south is a great step forward and will add to the two existing chains of 4-star luxury hotels in the south and the O.N.C.F. establishment in the country's large towns.

Assuming realisation of the manpower targets of the State undertakings, 95% of the overall hotel accommodation building programme will depend on the success of the incentivation measures to be adopted.

b) Incentivation by the State

- In order to attract other investors in the tourist sector the State will provide additional financial aid to support the personal contributions of promoters. This aid will take the form of an equipment grant representing 9% of the total investment over the period in the hotel trade.

- More indirectly the State will provide financing by credit allocations; this credit is strategic as it will finance more than half the overall investment for the period. The annual amount of new credits granted by the Crédit Immobilier et Hôtelier du Maroc (C.I.H.) would therefore be approximately 75 million DH; this is within the estimated amount allocated by this organisation for financing the hotel trade sector. The effectiveness of the State s incentivation programme will be increased by a number of measures:

3.2. - Measures to facilitate privately promoted investment

Industrial enterprises in the tourist sector are limited to those which build hotel accommodation and installations. Cultural bodies and enterprises concerned with leisure and holiday pastimes should also be industrialised in order to achieve the fixed targets.

All the new enterprises in the tourist sector, re-organised on these lines, will benefit from existing incentivation measures to attract private investment under the tourism Investment Code; we shall now deal in turn with each of the three types of measures:

- equipment grants
- credit facilities
- taxation and customs regulations.

a) The equipment grant

Delays in the procedures for making these grants will be eliminated.

In order to induce private investors to follow the objectives laid down by the Five Year Plan, the amount of grant will vary according to the location, the category, and the cost of the project.

able 19: Differential rate of the equipment grant

LOCATION OF HOTEL	Category	
	2 and 3 star	1,4 & 5 star
.A.P.	20%	15%
ez, Marrakesh, Far South	20%	15%
thers	10%	10%

The grant will be paid in two parts: 50% on completion of alf the project and 50% on final completion; this will assist the nvestor while the work is proceeding.

) Hotel trade credit

Credit facilities for the hotel trade will continue to be nproved particularly in order to lighten the financial burden ncurred at the start of operation.

i - Duration of loan

Building loans will extend systematically over 20 years and quipment loans over 10 years.

ii - Deferred amortisation

Repayment of the principal of the loan can be deferred over period of 5 years, the borrower only paying interest during this eriod. This will help his liquidity situation and provide a rther encouragement to invest.

iii - Percentage of loan

Loans granted by the appropriate Credit Fund (C.I.H) will ount to 60% of the overall investment.

iv - Cost of credit

An important factor in any investment decision, the standard terest rate is fixed at 4.5%.

Taxation and customs regulations

Already benefitting from guaranteed stable rate of taxation, e new hotel trade enterprises will have further advantages in e form of exemption from taxation and of customs facilities.

i - Guaranteed stable rate of taxation

Investors already benefit from a guaranteed stable rate of xation under article 46 of the Royal Decree No. 1 010-65 of 8 madan 1385 (31st December 1965) in respect of the following xes:

- tax on trading profits
- tax on patents
- municipal and urban taxes

This guarantee is applicable for ten years. It concerns the rate of taxation, the method of assessment and also the modalities for collection.

Investors will be given other advantages under a replanned Investment Code.

ii - Exemption from Customs Duties

Imports of products and capital goods not manufactured in Morocco will be allowed duty free in order to facilitate hotel equipment.

4 - Management policy and action on prices

This is one of the most important aspects of the tourism policy under the Five Year Plan. It is not sufficient to build hotels, advertise and then wait for clients to fill them. Clients will only come in large numbers if they find quality of service and prices competitive with those obtainable elsewhere. Thus it is a hotel service, mainly for tourists, offering top quality service and attractive prices which needs to be developed. Before detailing the measures to be undertaken by the State in this respect it should be recalled that on the eve of the Five Year Plan the prices for hotel and allied services are still high, although efforts begun under the Three Year Plan are now beginning to bear fruit.

This is one of the reasons why the decision was made to direct building towards the medium class of hotel in order to reduce the average level of prices.

Under the Five Year Plan the State will have three means of action to realise the targetted objectives in this sector:

- setting up model units
- revising and keeping up to date hotel and restaurant gradings
- technical control of projects.

4.1. - State Model Chains

The State will build medium class model hotel groups selected in accordance with the policy adopted and according to modalities to be studied, as a function of clients' requirements. This applies to the chain of seven 3-star hotels which will form the main basis of the State s programme in this field.

These projects will serve as examples and the State should prove that it is indeed possible to build hotels, taking technical amortisation into account, at competitive prices.

To achieve this and prior to the start on building, a study will be carried out before the end of 1968 of the cost of the projects and the conditions of their operation, in order to determine the norms concerning both cost, building methods and modalities of operation. This will result in regulations for employment of staff, supplies and the general management of State hotels and this again will be conducive to competitive prices. Morocco, a country where food is relatively cheap and labour costs fairly low, should be in a position to offer much lower prices than those in the industrialised countries of Europe which will consequently be attractive to potential clients.

One of the means of improving management is to make it the responsibility (where a chain or group is concerned) of a natural person or corporate body. This partnership of the State as promoter and the private sector as manager is already operated at certain hotels.

4.2. - Grading of hotels and restaurants

Still as a function of the management studies, current price norms should be reviewed and strictly adhered to. Hotels and restaurants should be classified based on the quality of service given after investigation. Non-observance of official prices will result in penalties.

4.3. - Control over projects

It is essential that private promoters, directed and advised by the responsible Ministry, should adhere to the investment policy planned for the five year period. State direct aid in the form of equipment grants will particularly be subject to observance of the financial norms: cost control of projects at all stages will ensure observance of the overall policies of the Five Year Plan and the long-term profitability of investments. This control will be carried out by the programme planning section of the Ministry of Tourism which will forward the file for decision to the Investment Committee.

5 - Information and reception policy

A policy for the rapid growth of tourism should not overlook the need for an extensive advertising programme overseas and reception facilities for tourists in Morocco itself. The necessary "infra-structure" is essential for this purpose. Efforts over the Five Year Plan will place emphasis on the following:

- prospection of international markets (advertising and publicity)
- improvement of transport facilities and conditions and of travel agents' services;
- simplification of formalities to be completed by tourists;
- development of a policy on leisure and holiday activities.

5.1. - Prospection of international markets

The means at present devoted to publicity and advertising on international tourist markets are inadequate both in extent and in their regularity.

Tourism, however, can only be developed if Morocco s particular attractions are continually publicised among potential clients. Action in this field demands not only the availability of much greater credits but also specialised advertising, publicity and public relations campaigns by the appropriate services. Morocco should methodically and systematically prospect the inclusive tour charter organisations throughout the year, although not neglecting the socio-economic sectors where individual tourists may be attracted.

It has therefore been decided to devote considerable efforts to this field. The advertising and publicity budget which accounts at present for approximately 1% of tourist revenue will be gradually increased to more than 2%. In conjunction with the State effort, action by the private sector in this field is essential to translate potential demand into effective demand. The agents in the private sector are mainly the travel agencies; it is urgent that they should be given a legal status laying down their rights and obligations. In order to be more effective these agencies should be in a position to prospect overseas markets themselves by setting up subsidiary companies and offices in the countries concerned.

5.2. - Improvement of transport facilities

a) Internal transport

It appears essential to provide both private tourists and organised groups with road transport facilities which are in line with international standards. Travel agents and hotels should be able to provide local tours such as guided visits to towns, sites, etc., with their own transport and at prices likely to be attractive to tourists visiting Morocco on "all-in" inclusive tours.

b) International transport

Considerable efforts will be devoted to air transport over the five year period. Consideration is already being given to increasing the Royal Air Maroc (R.A.M.) fleet and extending its regular services to other countries. Airport infra-structure will be extended and improved as detailed above. Development of the "charter" type of transport will be pursued and the administrative obstacles eliminated.

As far as sea transport is concerned considerable efforts again will be devoted to building wharves and a maritime station at Tangiers and to improving the mixed car ferry services.

A line linking Sete with Tangiers is under consideration. It would shorten the road or rail route for tourists coming from northern and eastern Europe.

5.3. - Reception of tourists

The procedures for the reception of tourists will be improved. Certain reforms have now become essential together with the modifications needed to cope with far greater numbers of tourists; these modifications will become evident as time goes on. The co-operation of both the general public and the public or private organisations in contact with the foreign visitors will be more than ever necessary. Two types of action have already been determined and are now being resolved: simplification of formalities and guidance for tourists. Finally, use of the insurance "green card" will be extended to Morocco.

a) Simplification of frontier formalities

The first and last contact frequently makes the most impact on tourists; the crossing of frontiers should therefore be made as rapid as possible. Already begun under the framework of the "International Tourism Year", the police formalities will continue to be simplified.

Currency control will be as discreet as possible and specific advice on the rights and obligations of tourists will be given to customs personnel.

b) International "green card" insurance cover

This card is not valid in Morocco and is therefore an obstacle to any increase in motorised tourists, particularly as completion of the necessary insurance forms is added to the other arrival formalities. The appropriate authorities should therefore take immediate steps to validate the green card as is the case in most other tourist countries.

c) Guidance and advice for tourists

Reception offices at each tourist site will help the private tourist find accommodation and provide him with all the information on the various tourist facilities in the region. Travel agencies will also play an important role in organising internal itineraries and in routeing overseas visitors to Morocco.

d) List of hotels and restaurants

Details of hotels and restaurants will be shown conveniently and clearly in a leaflet similar to those published by most other countries, particularly showing prices; this is part of the policy to control prices.

6 - Leisure promotion policy

An increase in holiday tourists in the Z.A.P. and in tourist itineraries should go hand in hand with a dynamic policy for the promotion of leisure activities. As an essential prerequisite for the commercial success of any tourist centre, sporting equipment and leisure and cultural facilities should be provided without delay in order to bring tourist facilities to the same level as in the developed countries.

The Ministry of Tourism will play a vital role in this field. It will improve its structures and direct them towards this policy, possibly even setting up a specialised organisation for this purpose if needed.

The Investment Code will be extended and adapted to cover all tourist enterprises. The Hotel Real Estate Credit Fund regulations will also be improved along similar lines. Finally price control policies will be applied to all tourist establishments. Within the framework of this overall policy there are three types of action which may be distinguished:

- cultural and artistic facilities
- sporting events and promotion of fêtes
- other leisure activities and holiday facilities.

6.1. - Cultural and artistic facilities

The present growth in the demand for leisure activities of a cultural or artistic nature necessitates further promotion of this type of facility.

"Son et Lumière" spectacles should be organised at the most important historic sites where this is feasible to provide evening entertainment for visitors wishing to know the country better and for music lovers.

The rich Moroccan folklore should be exploited to the full for the benefit of visitors travelling to the Far South or the Imperial cities and also particularly for the hotel-based tourists. In this context establishment of a national folklore troupe whose shows would be prepared and announced in advance would provide an attractive itinerant spectacle for the whole country and also be good publicity overseas.

6.2. - Sporting events, promotion of Fêtes

For the benefit of overnight travellers and for hotel-based tourists, various events, sporting and others, will be promoted, planned and recorded annualy by province and listed in a "calendar of events" distributed to travel agencies and other tourist bodies overseas and to all visitors.

National or international golf, hunting, fishing, automobile or swimming competitions should be promoted or actively encouraged in close liaison with the Sporting Federations concerned. Water sports should be encouraged by regional or national cups.

Beauty competitions and presentations of collections will also contribute to the facilities which are essential in the life of a seaside resort.

In conjunction with the promotion of sporting events and fêtes all types of urban leisure activities to which tourists are now accustomed should be developed, both in the new resorts and in the existing tourist conurbations.

6.3. - Other leisure activities and holiday facilities

The need for dynamic action in the private sector is felt, both in respect of the promotion of fêtes and sporting events and of the setting up and management of establishments providing extra tourist facilities in addition to the traditional services of hotel accommodation and restaurants. This type of facility, the lack of which will probably hinder the growth of tourism, includes particularly the following:

- bars, cafés, drinks facilities;
- nightclubs, discotheques;
- casinos and gaming establishments;
- seaside sports clubs, water-sports clubs, various games: miniature golf, swimming pools, tennis courts, horse riding;
- duty free shops and State-run shops will be opened at airports and the main urban centres to absorb as much foreign currency as possible and open up a new market for the craft industries. Produce consumed by tourists (wine, alcohol, photographic materials) will be sold in these shops at favourable prices.

In addition, reserves will be stocked with all varieties of the country's game and will provide one of the additional holiday attractions.

All these leisure activities will be encouraged or even subsidised. Dynamic promoters and local communities will be advised and given financial aid by means of credits and equipment grants.

⁂

These measures, the main lines of which have just been outlined, will be finalised in 1968 and implemented by 1969 at the latest.

Table 20: Summary of tourist investment under the Five Year Plan 1968-1972

(in 1,000 DH)

Heading	1968	1969	1970	1971	1972	Total
A - State expenditure						
Hotel accommodation						
- State hotels	2,540	6,060	7,350	11,000	8,000	34,950
- Equipment grants	7,000	8,000	10,000	15,000	17,540	57,540
Total	9,540	14,060	17,350	26,000	25,540	92,490
Hotel auxiliary accommodation						
- Camping, caravan sites	960	1,440	1,440	2,400	3,360	9,600
Total	960	1,440	1,440	2,400	3,360	9,600
Infra-structure						
- Development of the Z.A.P	4,000	6,000	8,000	10,000	12,000	40,000
- Specific schemes	2,000	2,000	1,000	1,000	1,000	7,000
Total	6,000	8,000	9,000	11,000	13,000	47,000
Completion of the Three Year Plan	10,000	12,000	-	-	-	22,000
Total	10,000	12,000	-	-	-	22,000
Occupational training	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
TOTAL PUBLIC FUNDS	26,500	35,500	27,790	39,400	41,900	171,090
B - Semi-official and local community expenditure						
Hotel accommodation						
- Hotels	4,706	7,100	9,350	11,600	14,080	46,836
- C.I.H. credit	38,000	58,558	77,000	97,500	109,600	380,658
Total	42,706	65,658	86,350	109,100	123,680	427,494
Hotel auxiliary accommodation						
- Camping, caravan sites	1,040	1,560	1,560	2,600	3,640	10,400
TOTAL SEMI-OFFICIAL FUNDS	43,746	67,218	87,910	111,700	127,320	437,894
C - Private sector expenditure						
Hotel accommodation						
- Hotels	15,147	22,700	30,100	37,800	45,300	151,047
TOTAL PRIVATE FUNDS	15,147	22,700	30,100	37,800	45,300	151,047
GRAND TOTAL	85,393	125,418	145,800	188,900	214,520	760,031

KINGDOM OF MOROCCO

PRIME MINISTER.

MINISTRY OF ECONOMIC AFFAIRS, PLANNING AND
THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 5

POWER

MARCH 1968

POWER

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P O W E R

INTRODUCTION

Part one of this section reviews the power sector situation on the eve of the 1968-1972 Plan and evaluates the Three Year Plan

Part two indicates the policy trends of the Five Year Plan 1968-1972.

The third part is devoted to the programme of action: growth in the demand and supply of power products during the period 1968-1972 and the installations to be built in order to meet the power demand.

In view of the time needed to build these installations (five years for a hydro-electric power station for example), the 1972-75 Programme has also been applied for the electricity sub-sector.

Part four deals with the attempt which will be made during the 1968-72 Plan to find the means to reduce the cost of power, promote a healthy management policy and maintain exploitation of the Jerrada mine.

Part five is devoted to the specifications giving the principal characteristics of the projects to be carried out over the period 1968-1972.

The contribution of this sector (production and distribution of electricity, extraction and refining of oil, coal mining) in 1966 to the gross national product amounted to 354 million DH, or 3.2% of the total. In the industrialised countries this sector's share in the G.N.P. is 6%

The industry employs 11,000 persons, or 0.2% of the working population.

The sector's contribution to the gross national product is much greater than its contribution to employment as productivity in the industry is higher than in the remainder of the economy.

The economic development of Morocco is to a large extent dependent on the development of this sector.

It is therefore essential:

- to increase our power production capacity in general, thereby maintaining guaranteed production in excess of electricity demand in particular;

- to set up a national grid to ensure that demand can be met under any conditions;

- to make available to the industry the full range of industrial fuels;

- to reduce power prices as much as possible to contribute to the industrial development of the country.

1. The situation on the Eve of the Five Year Plan

1-1 Power consumption

Consumption figures for 1967 are:

- 1,500 Gwh (millions of kilowatt-hours)
- 1,270,000 tons of petroleum products
- 82 million cubic metres of gas
- 400,000 tons of anthracite
- 50,000 tons of soft coal and coke

In terms of population this consumption is still very low, particularly if account is taken of the fact that 200,000 tons of anthracite were burned in the thermal power stations.

Electricity consumption per head is in the region of 110 Kwh. Compared with certain other countries this places Morocco among those countries with a low power consumption. This situation is explained by the as yet modest industrial development (15% of the G.N.P.).

Added to this is the low household consumption of electricity (widely scattered rural population).

1-2 Power equilibrium

In order to meet the demand for power,

- several hydro-electric and thermal power stations;
- a national grid to ensure that any demand can be promptly met;
- two refineries;
- exploitation of the anthracite deposits at Jerrada;

have had to be built or set up.

To meet the total demand for electricity and anthracite from Morocco's own resources (even exporting anthracite), practically all crude oil and all soft coal and coke supplies are imported.

Furthermore, the refineries are unable to produce the full range of refined petroleum products. At least during the first years of the Plan these will continue to be imported. Beyond 1972, however, only crude oil will be imported.

1-3 Power prices

Power prices have been remarkably stable (they have not changed since 1958) and a balance has been maintained ensuring that certain fuels have not been ignored in favour of others.

In spite of the scattered nature of electricity consumption, the low *per capita* consumption and the non-existence of production and distribution installations maintained beyond the amortisation period, the cost of electricity is comparable with that in the industrialised countries.

The price structure is very "flexible", selling prices, excluding tax, varying between 0.06 DH and 0.45 DH/Kwh.

Prices include:

- a fixed tax: annual rate in proportion to the power consumed;

- a basic price: per unit of electricity consumed, subject to a reduction for electricity supplies in off-peak periods;

- discounts: on basic prices according to the amount of annual consumption.

These three cost factors are also increased by a further factor taking into account distances involved in supplying power.

The table below shows the upper and lower limits of prices in force at present:

Table 1: Price of electric power (DH/Kwh)

	Lower limit	Upper limit
High tension	0.0603	0.1758
Medium tension	0.076	0.14
Low tension	0.10	0.45

Prices of industrial petroleum products and coal depend on location and distribution costs. They have remained unchanged since 1968.

2 - Evaluation of the Three Year Plan

In view of the fact that growth in consumption has been lower than planned the achievements of the Three Year Plan in respect of power are very satisfactory.

2-1 Electricity

The target production figures were estimated assuming an annual consumption growth of 7%. The annual rise in fact was only 5.5% in 1965, 5.6% in 1966 and 3.4% in 1967.

Table 2: Electricity consumption

(in millions of Kwh)

	1964	1965	1966	1967
O.N.E. estimates	1,242	1,340	1,438	1,554
O.N.E. achievements	1,243	1,312	1,386	1,434
Electras maroquies	89	90	95	103
TOTAL	1,332	1,402	1,481	1,537

The production installations envisaged under the Plan and either being built or already completed are as follows:

- the 15 MW gas turbine at Sidi Kacem (built in April 1967)
- the 60 MW set at Roche Noires the operation of which was planned to start at the end of 1968 and was advanced to the beginning of 1968.
- the 23 MW set at Mechra Klila (operation begun in September 1967)
- the 6.5 MW hydro-electric plant at Bou Areg which will start operating in 1969 instead of 1968.

The following production plant has been abandoned:

- the third 15 MW set at Imfout
- the second 10 MW gas turbine using the Jaer and Kechoula gas (Essaouira).

An essential feature of the Plan was to connect Rabat and the northern region to the 150 kv supply and this work is continuing at present.

The table below shows the estimates of the Three Year Plan and actual achievements.

Table 3: Estimates and achievements of the Three Year Plan in respect of electric power

(in millions of DH)

	1965		1966		1967		1965-1967	
	Estimates	Achievements	Estimates	Achievements	Estimates	Achievements	Estimates	Achievements
Production installations	30,860	7,706	43,400	33,907	41,712	56,687	115,972	98,310
Transport	31,555	23,366	20,950	15,640	27,720	40,167	80,225	79,173
Others (improvement and research	14,077	11,616	16,377	6,591	13,000	12,662	43,454	30,869
TOTAL	76,492	42,688	80,727	56,138	82,432	109,526	239,651	208,352
Percentage of achievement	56		70		133		87	

As will be seen there was heavy expenditure on production installations in 1967; there are two reasons for this:

- the falling due of plant loans made at the beginning of the Plan;
- the start of operation of the Roches Noires II factory, scheduled for the end of 1968 but advanced to the beginning of 1968.

Total expenditure amounted to 208 million DH against estimates of 240 (87%).

2-2 Petroleum products

At present the country disposes of two refineries capable of producing liquified gases, petrol, paraffin,gas oil and fuel oil. A maximum of 1,700,000 tons per annum of crude oil can be processed, including 1,300,000 tons for the SAMIR and 400,000 tons for the Société Chérifiene des Pétroles.

This sector has experienced in Morocco a rapid growth of demand and techniques, thus explaining the discrepancy between the Three Year Plan estimates and its actual achievements.

Table 4: Three Year Plan estimates and achievements in respect of petroleum products

(in millions of DH)

	Plan evaluation	New evaluation	Achievement 1965-1967
I. Projects scheduled under the Plan			
Catforming	8	10	10
Butane and propane	0.65	0.65	0.65
Bitumen	8.5	20.37	10
Paraffin	3	4	4
Processing of oils	1.7	1.7	1.7
Gas filling	4.7	6.5	5.5
Hydrocarbon laboratory	0.2	0.15	0.15
II. Projects not specified under the Plan			
Turbine fuel	-	4.5	2.5
TOTAL	26.75	47.87	34.50

Investment in the refined products sector was greater than estimated (by source 129%).

This is explained by the under assessment of investment and the adaption of scheduled plant to new activities (the bitumen factory has been designed to provide distillate lubricants).

2-3 Coal

The Jerada mine has had the capacity since 1953 to produc some 700,000 tons a year.

As production will only reach this figure in 1971 no investment is planned to increase the mine's capacity.

Investment however will be needed for the renewal of equipment and to meet the increased production (1,000,000 DH/ year).

Table 5: Summary of investment under the Three Year Plan

(in millions of DH)

	Estimates	Achievement	Percentual achievement
Electricity	239.65	208.35	87
Petroleum products	26,75	34.50	129
Coal	3	3	100
TOTAL	269.40	245.85	91

From the investment point of view the Three Year Plan programme was 91% completed. This is a satisfactory result bearing in mind the fact that the demand for electricity increased less than had been anticipated.

Electricity Production Facilities existing at 1st January 1968

(in MW)

HYDRO-ELECTRIC POWER PLANTS		THERMAL POWER PLANTS	
	Power		Power
AFOURER	93.60	ROCHES I	32.00
BIN EL OUIDANE	135,00	OUJDA	24.50
IMFOUT	31.20	SIDI KACEM	21.10
MECHRA KLILA	23.20	AGADIR	8.60
MACHOU	20.80	TANGIERS	12.10
DAOURAT	17.00	TETOUAN	3.30
Others	57.29		
TOTAL	378.09		101.60

I - POLICY TRENDS

The target of the policy on power is to meet demand whatever ne water availability and to maintain a proper balance between ne various sources of power and reduce fluctuations in the demand or anthracite.

- Electricity

As far as electricity is concerned this objective presupposes:

Increase in the power installed such as to meet demand for lectricity whatever the water availability. It is therefore ssential to maintain guaranteed productivity in excess of demand.

The means required to ensure that demand is met are therefore efined on the basis of the guaranteed productivity corresponding, r the hydro-electric plants, to the last year of a cycle of w water availability.

Account has also been taken:

- in respect of hydro-electric installations, of irrigation requirements which affect the output of some of these power stations;
- in respect of thermal power stations, of the running down of plant as a function of the extent of use.

Co-ordination is maintained between the various sources of wer, priority being given to electricity produced by the hydro-ectric power stations and then to electricity produced by the ermal power stations.

This is in order to obtain an effective management and to ke use first of local resources.

Furthermore in order to be able to meet demand whatever the ter availability, the policy adopted during the Three Year an of increasing the installed thermal power has been maintained. e installed thermal power will therefore be increased from 21% 1968 to 41% in 1972 compared with the total installed power).

Guaranteed thermal productivity will increase from 53% in 68 to 73% in 1972.

Petroleum products

With the exception of at least 100,000 tons, all the crude processed is imported. Until any discoveries should be made extensive hydrocarbon deposits, crude petroleum will tinue to be imported. An attempt, however, will first be made produce the maximum amount of finished products in the ntry's refineries (beyond 1972 only crude oil will be imported) secondly to balance the finished products' budget.

3 - Coal

The programme adopted will also reduce the C.N.A. deficit and all other things being equal, the Jerrada coal mines will be exploited to the maximum.

Not only will the demand for coal increase as a result of the starting up of the three coal-burning thermal power stations, but it will also become more regular; fluctuations in the demand for coal as a function of the water availability will be reduced.

4 - Prices

Under the 1968-1972 Plan the power price structure will be reviewed and an attempt made to find the means to reduce these prices (particularly for large consumers) without prejudicing first the management of the O.N.E. and secondly, exploitation of the Jerrada mine.

III - Programme of action

In order to meet the increased demand for power an investment of 510 million DH is planned in the electricity production and distribution sector, the coal mining sector and for the refining of petroleum products, or 4% of the total investment made by the economy in the 1968-1972 period. Out of these 510 million DH, 428 will be allocated for the production and distribution of electricity (84%).

Table 6: Investment envisaged under the Five Year Plan

(in 1,000 DH)

	Total 1968 - 1972
Electricity	427.512
Petroleum products	75.000
Coal	7.000
TOTAL	509.512

- Electricity

1 - Consumption

Demand in 1967 amounted to 1,537 Gwh (1 million Kwh) of which 1,434 was for the O.N.E.

The table below shows the demand which has had to be met by the O.N.E. since 1960.

Table 7: Demand for electricity met by the O.N.E. between 1960-1966

	1960	1961	1962	1963	1964	1965	1966
Demand in Gwh	1.012	1.052	1.088	1.161	1.243	1.312	1.386
Index	100	104	107.5	114.7	122.8	129.6	139

After being relatively stagnant during the period 1958-1962 electricity consumption began to increase more steadily. The rise in the gross production of power during the period 1968-1976 was calculated on the basis of an annual increase of 7%, based on the estimated figure for 1967. Actual gross production in 1967 was only 1,540 Gwh although this was a relatively stagnant year.

Gross production estimates for 1968-1976, in accordance with the programme adopted, do not take into account specific projects in respect of certain major electricity consumers which will probably be carried out during the Plan (over 50 Gwh/year)

Table 8: Gross demand for electricity

	1968	1969	1970	1971	1972	1973	1974	1975	1976
Demand in GwH	1685	1800	1930	2060	2210	2360	2530	2700	2890

The plant programme adopted, however, is not inflexible and if demand should be either heavier or lower, the start of operation of certain installations can be either brought forward or postponed.

1-2 Additional production facilities:

a) the plant scheduled to start operation during the period 1968-1972 is either in the process of being built or has been decided upon.

I) Hydro-electric power stations

- The Bou Areg plant (being completed) will start operating during the Plan(in 1969); the power installed is 6.5 MW.

- The Zaoula N'Ourbaz (10 MW) plant will start operating at the end of 1972.

- Building on the power stations associated with the Ait Adel and Hassan Ad Dakhil dams, which were to be built for agricultural requirements, has been postponed. Certain essential work, however, will be carried out in order to provide for the subsequent building of the hydro-electric power stations.

II) Thermal power stations

Three thermal power stations will begin operating during the Plan:

in 1968: the Roches Noires 2nd section (60 MW)
in 1970: the Jerrada 1st section (55 MW)
in 1971: the Jerrada 2nd section (55 MW)

For financial and economic reasons the second section of the Jerrada project will be completed in 1971.

III) Balancing the electricity supply and demand

The table below shows the movement of the electricity supply and demand.

Table 9: Demand for electricity production

(GWh)

	1968	1969	1970	1971	1972
Demand	1.685	1.800	1.930	2.060	2.210
Guaranteed hydro-electric power plant output	839	886	882	875	871
Guaranteed thermal plant output	900	930	1.084	1.469	1.625
Available margin	54	16	36	284	286

The plant being built or in respect of which a decision has bee made will enable the increased demand to be met.

b) Because of the time needed to complete building (3 to 5 years) certain plant which will only become operational after the Plan should be started during the period 1968-1972. The installations concerned are:

- The station at Arabat on the Inaouene which will become operational at the end of 1973.

- The station of Sidi Cheho on the Oum-Er-R'bia which will become operational at the end of 1974.

Studies will be carried out in 1972 for the installation in 1976 of the 3rd section of the Roches Noires (60 MW) plant.

Table 10: Electricity supply and demand
(1973 - 1976)

(GWh)

	1973	1974	1975	1976
Demand	2.360	2.530	2.700	2.890
Guaranteed hydro-electric plant output				
Stations existing in 1972, plus Zaouia N'Ourbaz	874	864	854	844
Arabat		38	38	38
Sidi Cheho	-	-	110	108
TOTAL	874	902	1.002	990
Guaranteed thermal plant output	1.625	1.625	1.625	1.835
Available margin	139	- 3	-73	-65

c) Investment

The investment needed during the 1968-1972 period to complete production plant being built, to carry out the necessary work for the later building of the hydro-electric power stations at the Ait Adel and Hassan El Dakhil dams and to start work on the plant which will become operational after 1972, amounts to some 279 million DH.

1-3 Distribution network

a) 225 KV network

At the same time as new production facilities are set up, the distribution network will be strengthened and extended.

The second set at Jerrada will become operational in 1971; this will increase the installed power in the eastern part of the country to over 160 MW and as this capacity will be considerably in excess of the regional consumption it will therefore be routed westwards.

A 225 KV line will be installed for this purpose between Jerrada and Oujda. In addition 225/150 KV auto transformer sets will be installed at Ouali, Meknes, Zsar and Tangiers. An inter-connexion post will also be installed at Meknes.

Including the credits relating to the installation of the Jerrada/Oujda 225 KV line and equipment of the Oujda post under the cost of the Jerrada plant, total expenditure on the 225 KV network will amount to 15,700,000 DH over the duration of the Plan.

b) 150 KV network

The following installations are planned:

- Completion of the Rabat-Tangiers link-up
- Installing the Tensift-Chichaoua line prior to linking the Souss region to the 150 KV network;
- Installing the Afourer-Foum Tizi line and the Foum Tizi post;
- Installing the Ait Adel Tensift line to supply electricity to the Zaouia N'Ourbaz dam;
- Installing the Tensift-Benguerir line operated initially by 60 KV;

This will be intended for the exploitation of the Benguerir phosphate deposits.

Total expenditure on the 150 KV network will amount to 26,523, 000 DH under the Five Year Plan.

c) 60 KV network

A group of installations is planned intended to strengthen or extend the network, some of which are already being built. This group will account for a total of 37,186,000 DH. These projects include:

- Linking Al Hoceima, Guercif, Ksar-Es-Souk, Erfoud and the Zaouia N'Ourbaz and Arabat dams to the national grid and connecting Selouane to Mechra Klila and Imfout to the Zemamra region.

Certain posts and transformer facilities (Salé, Miknès, Maachou...) will also be strengthened.

d) Medium tension

It has not been possible to give details of these installations. An assumption has simply been made that the past rate of growth will be maintained; this results in an overall estimate of 6,848,000 DH.

e) Additional and sundry development (62 million DH)

This development concerns numerous projects scattered throughout the country in respect of:

- additional development (small extensions, offices, improvements);
- improvement of the distribution network (new electrification sectors, extending and replanning the network);
- the studies and general expenditure, other than that relating to production plant, are grouped under the heading "sundry".

Expenditure on improvements, extension and strengthening of the network, for various development and the studies and general expenditure will amount to 148 million DH (excluding financial charges and interest).

Total investment expenditure on production installations and projects for improving and extending the network will amount to 427,512,000 DH.

The State Equipment Budget will bear 50% (213,756,000 DH) and O.N.E. 50%.

Table 14: New Production Facilities

	Power MW	Guaranteed Output GWh	Average Output GWh	Operational Date
I - Production facilities becoming operational during the period 1968-72				
Roches Noires II	60	420	420	1968
Bou Areg	6.5	50	50	1969
Jerrada I	55	385	385	1970
Jerrada II	55	385	385	1971
Zaouia N'Ourbaz	10	11	35	end 1972
TOTAL I	186.5	1.251	1.275	-
II. Production facilities becoming operational during the period 1973-76				
Arabat	17	38	47	end 1973
Sidi Cheho	90	110	230	end 1974
Roches Noires III	60	420	420	mid 1976
TOTAL II	167	568	697	-

1-4 Projects

Part five includes the specifications showing the main characteristics of the Arabat, Sidi Cheho, Jerrada and Zaouia N'Ourbaz projects.

INVESTMENT

	1968	1969	1970	1971	1972	Total Plan	Beyond 1972
I - Being completed or where a decision to build has already been taken							
- Mechra Klila (23 MW)	420	-	-	-	-	420	-
- Roches Noires 2nd section (60 MW)	6,293	-	-	-	-	6,293	-
- Bou Areg (6.5 MW)	6,742	1,800	-	-	-	8,542	-
- Jerrada 1st and 2nd sections (55, 55 MW)	25,200	43,000	95,800	43,000	-	207,000	-
- Ait Aadel	3,200	-	-	-	-	3,200	-
- Hassan El Dakhil	700	-	-	-	-	700	-
- Zaouia N'Ourbaz	1,300	2,200	2,800	8,800	6,200	21,300	-
Sub TOTAL 1	43,855	47,000	98,600	51,800	6,200	247,455	
2 - Equipment to be installed							
- Arabat (17 MW)	-	500	1,200	8,000	6,300	16,000	9,000
- Sidi Cheho (90 MW)	-	-	1,000	5,000	9,300	15,300	55,700
- Roches Noires 3rd section (60 MW)	-	-	-	-	500	500	55,500
Sub TOTAL 2	-	500	2,200	13,000	16,100	31,800	120,200
TOTAL production facilities	43,855	47,500	100,800	64,800	22,300	279,255	120,200

TABLE II (continued)

3 - Additional network and development							
3.1 - 225/150 KV posts and 225 KV connexions	-	-	9,100	6,600	-	15,700	-
3.2 - 150/60 KV posts and 150 KV connexions							
- being installed	8,893	1,000	-	-	-	9,893	
- to be installed	4,100	9,550	2,980	-	-	16,630	
3.3 - 60 KV/MT post and 60 KV connexions							
- being installed	6,222	3,119	743	700	762	11,546	
- to be installed	4,250	8,240	4,800	3,500	4,850	25,640	9,400
3.4. - Medium tension lines	1,005	1,000	1,000	1,000	2,843	6,848	-
3.5 - Additional development	5,000	5,500	5,000	5,500	6,500	27,500	-
3.6 - Others (studies)	6,000	8,000	7,000	7,500	6,000	34,500	-
TOTAL network	35,470	36,409	30,623	24,800	20,955	148,257	9,400
GRAND TOTAL	79,325	83,909	131,423	89,600	43,255	427,512	129,600

2 - Petroleum products

2-1 Consumption

Evaluation of the increase in consumption of refined products was made on the following basis:

- first, on the basis of past trends
- secondly, for large consumers such as O.C.P., on their five year programmes.

Account was also taken of the start of operation of new projects.

Table 15: Demand for refined products

(in 1,000 tons)

	1967	1968	1969	1970	1971	1972
Propane	3.3	3.5	3.8	4.0	4.3	4.6
Butane	38.9	43.1	47.8	53.1	58.9	65.4
Super	97.9	100.6	103.3	106.3	109.3	112.2
Petrol	146.6	143.9	141.2	138.7	136.2	133.8
Naphtha	30.0	20.0	20.0	20.0	20.0	20.0
Turbine fuel	42.0	47.1	52.8	59.2	66.4	74.4
Paraffin	65.4	66.0	66.7	67.3	67.9	68.6
Gas-oil, internal	354.0	384.0	416.5	451.9	490.3	531.9
Gas-oil, bunker	15.0	20.0	20.0	20.0	20.0	20.0
Fuel-oil, internal	415.1	427.2	430.9	450.6	478.8	519.0
Lubricants	21.5	22.0	22.5	23.0	23.5	24.0
Bitumen	48.0	49.0	50.0	50.0	50.0	50.0
Paraffin	6.0	6.0	6.5	6.5	7.0	7.0
New projects						
Porcelain				2.0	2.0	2.0
Propane						
Ammonia: (Naphtha)						100.0
Fuel-oil						20.0

In view of the fact that the present capacity of the refineries is only 1,700,000 tons of crude oil a year (1,300,000 tons SAMIR and 400,000 tons S.C.P.), investments under the Plan which, moreover are limited, will have to be provided to ensure that demand is met as and when required.

The following production units are also planned to become operational between now and 1972 at Mohammedia.

Turbine fuel	:	beginning 1969
Bitumen	:	mid 1969
Lubricants	:	end 1970

The tonnage of crude oil to be processed by the refineries will increase from 1,320,000 tons in 1968 to 1,900,000 tons in 1972, an average annual increase of 10%. This increase does not adhere to the structure of consumption.

In fact, consumption of heavy products will increase much more rapidly than that of petrol which will remain practically constant.

The problem is now to maintain the composition of production. In order partly to re-establish the balance between light and heavy products, approximately 100,000 additional tons of naphtha should be produced for the synthesis of ammonia.

2-2 Five Year programme

The table below shows the movement of petroleum products obtained in the refineries.

Table 16: Refined Products

(in 1,000 tons)

	1967	1968	1969	1970	1971	1972
Propane	3.3	3.5	3.8	6.0	6.3	6.6
Butane	38.9	43.1	47.8	53.1	58.9	65.4
Super	97.9	100.6	103.3	106.3	109.3	112.2
Petrol	146.6	143.9	141.2	138.7	136.2	133.8
Naphtha	30.0	20.0	20.0	20.0	20.0	120.0
Turbine fuel	-	10.0	52.8	59.2	66.4	74.4
Paraffin	63.4	66.0	66.7	67.3	67.9	68.6
Gas-oil, internal	354.0	384.0	416.5	451.9	490.3	531.1
Gas-oil, bunker	15.0	20.0	20.0	20.0	20.0	20.0
Fuel-oil, internal	415.1	427.2	430.9	450.6	478.8	539.0
Bitumen			25.0	50.0	50.0	50.0
Lubricants				17.0	35.0	35.0
Slackwax				2.0	4.0	4.0
Total refined products	1 166.2	1218.3	1328.0	1442.1	1543.1	1760.1
Gross equivalent	1 260.0	1317.0	1434.0	1558	1667.0	1900.0

Table 17: Tonnage of crude oil processed by the Refineries
(excluding and including the specific projects)

(in 1,000 tons)

	1967	1968	1969	1970	1971	1972
Specific projects excluded						
SAMIR	844	900	994	1,096	1,183	1,272
S.C.P.	412	417	440	460	482	500
Total	1,256	1,317	1,434	1,556	1,665	1,772
Specific projects included						
SAMIR	844	900	994	1,098	1,185	1,400
S.C.P.	412	417	440	460	482	500
Total	1,256	1,317	1,434	1,558	1,667	1,900

2-3 Imports of petroleum products

Until any discoveries of extensive deposits of hydrocarbons are found, practically all the crude oil processed in the national refineries must continue to be imported.

However, at the end of the 1968-1972 Plan, as a result of the new refineries either being built or where construction will begin in 1968, the country should import only crude oil.

Table 18: Imports of Petroleum Products

(in 1,000 tons)

	1968	1969	1970	1971	1972
Crude oil	1,250	1,380	1,450	1,600	1,850
Lubricants	23	24	25	10	-
Bitumen	50	25	-	-	-
Turbine fuel	47	-	-	-	-
Slackwax	13	13	14	6	-

2-4 Investment

The table below shows the investment to be made under the 1968-1972 Plan on the two refineries in order to meet demand.

Table 19: (1,000 DH)

	1968	1969	1970	1971	1972	Total
Turbine fuel (SAMIR)	2,000					2,000
Bitumen (SOBIMA)	14,000					14,000
Lubricants	12,000	14,000	10,000			36,000
Increasing the capacity of SAMIR	2,000	2,000	2,000	3,000		9,000
Increasing the capacity of S.C.P	2,000	2,000				4,000
Propane	3,000					3,000
Increased reserves SAMIR	4,000	3,000				7,000
TOTAL	39,000	21,000	12,000	3,000	-	75,000

2-5 - The specification showing the principal characteristics of these projects will be found in part five.

3 - Coal

A systematic study of the visible layers of the Jerrada deposit, combined with a drilling programme in the areas situated under the dead ground, has enabled reserves to be assessed at least 100,000,000 tons.

Mining conditions are difficult and the anthracite is fairly crumbly; the calorific power is very high.

3-1 Consumption and production

Consumption forecasts were made by consumer.

The following assumptions were adopted:

- a halt to fines exports (0-6) at the end of the Plan;
- maintaining exports of grades 20-80.

With regard to export prices the North African coal fields are proposing to align their prices to international rates. It will therefore be possible to export any surplus production which is not sold locally.

It has been accepted that the O.N.E. requirements correspond to an average rainfall over the period 1968-1974.

On the basis of this "average water availability" assumption, total sales from the coal fields could be:

Table 20: Theoretical Sales

(in 1,000 tons)

	1968	1969	1970	1971	1972
Total sales	500	555	660	770	810
including O.N.E.	215	255	340	460	560

Theoretically the requirements of the thermal power stations would vary according to water availability within the following limits:

Table 21: O.N.E. Requirements

(in 1,000 tons)

	1968	1969	1970	1971	1972	1973
Wet year	30	60	160	220	360	460
Average year	215	250	330	460	565	640
Dry year	380	390	490	670	735	830

In fact, the requirements for 1968 will be at least as much as those for an average year and after 1970, even in wet years, sales of fines to the power stations will be assured.

Conversely, assuming several dry years (and although the percentage of variation between anthracite consumption in wet, average and dry years is decreasing), an eventual increase in the capacity of the Jerrada above 800,000 tons should be envisaged for 1971 and the following years; or, on the contrary, stabilisation at this level and use of the fuel in the Casablanca power stations should be envisaged.

In any event, the increased production, combined with some regularisation of the O.N.E. requirements, will contribute to making Jerrada economic.

The following table shows the theoretical increase in sales and production, assuming average water availability during the five year period 1968-1972.

Table 22: Growth of Sales and Production

(in 1,000 tons)

	1966	1967	1968	1969	1970	1971	1972	1973	1974
0-6									
Exports	20	20	20	20	20	20	20	-	
Home sales	340	335	325	370	460	555	575	660	770
TOTAL 0-6	360	355	345	390	480	575	595	660	770
6-20									
Exports	31	45	45	45	45	45	45	45	45
Home sales	35	37	60	70	80	90	100	110	120
TOTAL 6-20	66	82	105	115	125	135	145	155	165
20-80									
Exports	21	33	33	33	40	45	50	55	60
Home sales	16	17	17	17	17	17	17	17	17
TOTAL 20-80	37	50	50	50	57	62	67	72	77
GRAND TOTAL(Sales)	463	487	500	555	662	772	807	887	1,012
Production (rounded up)	450	500	550	600	650	700	800	900	1,000

3-2 Coal imports

Morocco possesses no coke or soft coal mines and is therefore obliged to import these grades of coal which, together with anthracite, are consumed by the cement works, sugar factories, breweries and various other industries.

Table 23: Coal Imports

(in 1,000 tons)

	1968	1969	1970	1971	1972
Soft coal	47	49	52	54	87
Coke	15.5	17	18.5	20	21.5

3-3 Investment

In order to meet increased production no considerable investment will be required under the 1968-1972 Plan up to the present production potential estimated at 700,000 tons per annum. On the other hand extensive investments will be needed after this figure is reached.

Investment will be provided by self-financing and is evaluate at one million DH a year with a peak of two million DH for 1971 and 1972 in order to exceed the level of 700,000 tons a year.

Table 24: Investment

(in 1,000 DH)

1968	1969	1970	1971	1972	Total 1968-1972
1,000	1,000	1,000	2,000	2,000	7,000

3-4 Profitability of the mine

Numbers employed will vary little during the Plan (4,000 approximately) and increased production will be achieved by increased basic productivity, rising from 940 kg per man and per day in 1967 to 1,200 in 1972.

The result will be a reduction in the average cost price per ton (78 DH in 1967) and a reduction in the deficit; this will be reduced from 8 million DH in 1968 to 3 million DH in 1972.

The bill for wages, salaries and social services charges will rise from 21 million DH in 1968 to approximately 26 million DH in 1972.

IV - POWER PRICE STRUCTURE

Hitherto competition has been strong among the various sources of energy. The hydro-electric potential was able to meet practically the entire electricity demand. Thermal-electric installations therefore remained under-utilised and at the same time Jerrada lost its most important client (50% or more of coal mined).

Fuel oil became a serious competitor of anthracite as a result of organisation of the petroleum products distribution network.

In view of the increased coal requirements of O.N.E. (the installed thermal power will in fact be more than doubled during the Plan, whilst hydro-electric capacity will remain practically constant) and also of the fact that demand for heavy petroleum products is increasing more rapidly than that for petrol, this competition,prejudicial in fact to the economy - will lessen over the 1968-1972 period.

A more flexible price policy for power can, therefore, be adopted. Thus although electricity prices on average are comparable to prices applied in the European Economic Community, the means will be investigated during the 1968-1972 period of reducing them.

Meanwhile, however, any industry which is a heavy electricity consumer (annual consumption over 50 GWh) which is set up can conclude a special contract with the O.N.E. under State supervision.

Similar contracts can also be signed as far as petroleum products are concerned.

APPENDIX

PROJECT SPECIFICATION

JERRADA THERMAL POWER STATION

Organisation responsible: National Electricity Board (O.N.E.)

Two groups of 55 MW each will be installed. They will become operational successively in 1970 and 1971. The choice of two groups instead of one is because of the power already installed and the rate of growth of demand.

The advantage of this project is that a Moroccan fuel is used (base products: sludge and gross fines), that our production capacity is less dependent on the water availability and that a relatively short time is needed for its installation.

Characteristics of the power station

1 - Location: in the immediate vicinity of the Jerrada mine
2 - Fuel: mixture of gross fines and base products.

Productivity

385 GWh on the basis of an annual utilisation of 7,000 hours for each of the groups.

Building· 40 months

- Start of work : 1968
- 1st Group operational : October 1970
- 2nd Group operational : July 1971

Financial Programme (in 1,000 DH)

1968	1969	1970	1971	Total
25,200	43,000	95,800	43,000	207,000

Supply (jointly to both groups)

By conveyor belt from the washery to the boiler bins. Stockpile of 20,000 tons.

Lighting of boilers and low load operation (joint)

Fuel reserve stocks are planned at 300 tons.

Steam generator

Two boilers (one for each section) each capable of an hourly production of 215 to 230 tons of heated steam at natural circulation.

Turbo-generator set

- Condensation and tapping turbine, power 55 MW, 90 bars approximately 535°C.
- Alternator: 70 MVA, 10 to 15 KV, hydrogen cooling.

Evacuation of power (both)

225 KV 60 km line ending at Oujda.

Various

- Supply by auxiliary sets during start up: joint transformer, both sets.
- Demineralisation unit.

Labour (total)

Building : 250 workers and 50 foremen and technicians
Operation : 100 workers and 30 foremen and technicians.

ZAOUIA N'OURBAZ

Organisation responsible: National Electricity Board (O.N.E.)

Construction of a power station at the foot of the Zaouia N'Ourbaz dam intended to regularise the Draa waters for irrigation purposes and flood control will enable the production potential to be exploited deriving from the fall created by the dam.

Characteristics of the plant

1 - Location

At the foot of the dam, 15 km as the crow flies from Ouarzazate.
Total capacity: 560 Hm3
Working capacity: 536 Hm3

2 - The electricity production plant will comprise:

- water point and full pipe
- compensation chimney (if necessary)
- tail-race or leak gallery
- MT/HT post linked to the power station
- power station properly so called
- connexion to the national grid

3 - Characteristics of the installation

- gross height of fall : 52 to 26 m
- equipped flow : 25 m3/s
- installed power : 10 MW
- number of sets : 2
- connexion to grid : by one 60 KV line ending at the Tensift post Via Ait Aadel
    - Zaouia N'Ourbaz - Ait Aadel section by 60 KV
    - Aid Aadel-Tensift section by 150 KV

4 - Annual power output

- Average .... 35 GWh
- Minimum .... 11 GWh

The installation will be used for irrigation and flood control purposes. In view of the distance between the dam and the points where the water will be drawn off for irrigation, however, no compensation dam is envisaged.

5 - Building

- Studies and allocation of work .... 18 months
- Completion .... 36 months

54 months

6 - Cost

Total investment is estimated at 32,300,000 DH. The foreign exchange share will amount to 13,000,000 DH, the Dirham share amounting to 19,300,000 DH.

Connecting the plant to the national grid, however, will account for 11,000,000 DH.

Cost Programme (in 1,000 DH)

	1968	1969	1970	1971	1972	68-72
Plant	1,300	2,200	2,800	8,800	6,200	21,300
Connexion line	4,000	7,000	-	-	-	11,000
TOTAL	5,300	9,200	2,800	8,800	6,200	32,300

7 - Labour

- Construction phase (3 years) : 80 workers and 15 foremen and technicians.
- Operation (permanent staff) : 24 agents

ARABAT

Organisation responsible: National Electricity Board (O.N.E.)

Construction of a power station at the foot of the Arabat retaining dam on the Oued Inaouene, intended to irrigate the Sebou plain, will enable the resulting electricity production potential to be exploited.

Characteristics of the plant

1 - Location

At the foot of the Arabat accumulation dam, situated on the Inaouene, the right bank tributary of the Sebou.

Total capacity	1,500 hm3
Working capacity	1,100 hm3

2 - The electricity production plant will comprise:

- Water points and short length full pipe situated inside the dam.
- The power station properly so called
- Very short tail-race
- MT/HT post linked to the power station
- Connexion to the national grid

3- Characteristics of the installation

- Gross height of fall : 53 to 37 m

	1st phase	2nd phase
- Equipped flow - Installed power - Number of sets	40 m3/s 17 MW 2	60 m3/s 35 MW 3

- Connexion to grid: by 60 KV at the El Ouali post. The 2nd phase involves building the Sebou Inaouene diversion which will become operational in 1982.

4 - Annual power output

	1st phase	2nd phase
Average	47 GWh	75 GWh
Minimum	38 GWh	55 GWh

The plant will be operated for irrigation purposes. Because of the considerable distance separating the dam from the points where the water will be drawn off for irrigation (of the Gharb plain) no compensation dam is planned.

5 - Building

- Studies and allocation of work	18 months
- Completion	36 months
	54 months

6 - Cost

Total investment is estimated at 25 million DH, including 2 million DH for connexion to the national grid. The foreign exchange share is estimated at 12,000,000 DH.

Programme (in 1,000 DH)

1969	1970	1971	1972	Total 1968-1972	Beyond 1972
500	1,200	8,000	6,300	16,000	9,000

Labour

Construction phase (3 years) : 80 workers and 15 foremen and technicians

Operation phase : 24 permanent agents

SIDI CHEHO

Organisation responsible: National Electricity Board (O.N.E.)

Development of Sidi Cheho on the lower course of the Oum-Er-R bia is intended both for irrigation of the Abda Doukkala and for power production.

Characteristics of the plant (Production of electricity)

1 - Location: 25 km as the crow flies south east of Mechra Ben Abou where the Casablanca Marrakesh road crosses the Oum-Er-R'bia. The site is 40 km upstream of the Imfout.

Capacity : 1,700 hm3

2 - The electricity production plant will comprise

- Water point and forced short piping situated inside the dam
- Plant installed at the foot of the dam
- Leak canal
- 150 KV post with possibly a 60 KV section
- Connexion to the grid

3 - Characteristics of the installations

- Gross height of fall	51 to 34 m
- Equipped flow	200 to 240 m3/s
- Installed power	90 MW
- Number of sets	2
- Connexion to the grid	150 or 225 KV by one line ending in the Casablanca region.

4 - Annual power output

Because of the increased water supplies drawn off upstream for irrigation purposes (Tadla region) the output of the plant will gradually drop.

	1975	1982
Average	230 GWh	200 GWh
Minimum	110 GWh	95 GWh

The electric power station will be operated for irrigation purposes when the Abda Doukkala region has been fully developed. The existence downstream, however, of the Imfout dam, which can play the rôle of a compensation installation will enable the plant to be used at peak periods.

5 - Building

- Studies and allocation of work .... 18 months
- Construction and completion .... 54 months

72 months

6 - Cost

Total investment on the electricity production installations is estimated at 71 million DH, including 30 million in foreign exchange.

Programme (in 1,000 DH)

1970	1971	1972	1973	1974	1975	Total
1,000	5,000	9,300	23,700	22,000	10,000	71,000

Labour

- Construction phase (4 years) : 200 workers and 25 foremen and technicians
- Operation (permanent staff) : 36 agents

BITUMEN

Location

Mohammedia : because of the existence of the SAMIR which will supply the product to be processed

Description

The plant will have a capacity of 50,000 tons a year and will produce the following types of bitumen:

- Permeation bitumen .... 180/200 at 25°C
- Permeation bitumen .... 80/100 at 25°C
- Permeation bitumen .... 40/50 at 25°C
- Various cut backs

or
- Pure bitumen .... 28,700 tons
- Oxidised bitumen .... 6,500 tons
- cut backs .... 12,000 tons

The plant will be supplied from the SAMIR. It will return to the parent factories (SAMIR and S.C.P) the distillates not required for the production of bitumen.

Its electricity, steam, industrial water, cooling water and compressed air supplies will come from the SAMIR.

Investment

	Local expenditure (1,000 DH)	Foreign exchange (1,000 DH)
Key factory	8,855	9,373
General expenses	700	
Interest	751	
Contingency	691	
Working capital	1,300	700
TOTAL	12,297	10,073

Programme (in 1,000 DH)

1967	1968
8,260	14,110

Operation:

The factory will only supply the home market and can just meet present demand. It will subsequently also produce the distillates required for the lubricants factory (35,000 tons of lubricants a year).

	Revenue (1,000 DH)	Expenditure (1,000 DH)
Pure bitumen	5,464	
Industrial bitumen	1,787	
Cut backs	2,376	
Others	861	
Intermediate consumption		5,905
Staff (32 Moroccans)		390
Amortisation		2,037
Interest and dividends		1,316
Taxation and customs duties		840
TOTAL	10,488	10,448

LUBRICANTS

Location : Mohammedia

This will be added to the bitumen factory, the vacuum tower of which was designed for this purpose.

Production

35,000 tons a year of lubricating oils
4,000 tons a year of slackwax

Present market

In 1971 the Moroccan market will absorb 23,000 tons of lubricants.

The Shell company which will acquire shareholding in the plant will market surplus production on international markets.

The 4,000 tons of slackwax represents approximately 30% of the tonnage needed for the present Shell paraffin refinery at Casablanca.

Investment : 36 million DH

Completion : 30 months
Start of work: 1968

Employment : 127 jobs including 10 foreign technicians for 3 years.

AMMONIA

The project scheduled for the 1968-1972 period, the pre-investment study of which has not yet been completed, will produce ammonia by synthesis by burning naphtha.

The ammonia will be used by the Safi plant and possibly by the Mechra Ben Abou factory (to become operational in 1972) for the production of diammonium phosphate.

Production of 100 to 150,000 tons of ammonia is planned.

KINGDOM OF MORROCO

PRIME MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING
AND THE TRAINING OF SENIOR GRADES

Planning and Statistical Division

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 6

MINING

MARCH 1968

MINING

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MINING

The mining sector plays a substantial part in the economy. In 1964 it represented an incremental value of 620 million DH, or 5.7% of the gross national product. The incremental value in the mining sector in 1967 was approximately 5.3% of the gross national product, a slight drop compared with 1964.

On the other hand this sector employed 28,000 persons in 1967 or more than 0.6% of the total working population. It constitutes a major element in the trade balance, the foreign exchange inflow in 1966 amounting to some 870 million DH with home sales amounting to 85 million DH.

The inflow of foreign exchange in 1967 and home sales were appreciably the same as in 1966.

I - EVALUATION OF THE THREE YEAR PLAN

The purpose of this evaluation of the Three Year Plan is to indicate the state of progress of the work planned, the degree of completion and which projects have been realised or abandoned; in the latter case the main reasons for non implementation will be given.

To this end comparison will be made between the forecasts and achievements in the order adopted in the Three Year Plan.

1 - Directorate of Mining and Geology

1-1 Mining Division

Increase in the ore stocks from the deposits mined by the craft industry co-operatives:

- Credits envisaged by the Three Year Plan ......200,000 DH
- Amounts committed at 31.12.67 ....200,000 DH

1-2 Geological Division

The Three Year Plan intended to extend under this organisation, in addition to the basic work such as surveys and the publication of geological maps and various studies, the setting up of regional geological services.

In spite of certain administrative difficulties almost all the credits have been utilised.

Credits estimated for the duration of the Plan.. 9,290,000 DH
Achievement of the Plan .... 9,030,000 DH

2 - B.R.P.M. - Bureau de Recherches et de Participations Minières (Research and Mine Shareholdings Bureau)

The work of the B.R.P.M. over the three year period was directed to the following:

1 - General research
2 - Petroleum research
3 - Specific projects

2-1 General research

This was devoted mainly to the search for metals and substances such as copper, lead, zinc and silver. The search for potassium in the Doukkalas and Berrechid basins, in respect of which 10,000,000 DH had been envisaged, has been postponed.

- Estimates of the Three Year Plan, including potassium .... 10,500,000 DH
- Achievement of the Plan .... 10,130,000 DH

2-2 Petroleum research

For the three years in question the Plan envisaged 10 million DH to the charge of the B.R.P.M. The 65-66 projects and the 1967 estimates amount to 10,143,000 DH.

The table below summarises the general situation.

Comparison between achievemements and estimates of the

Three Year Plan 1965-1967

(in 1,000 DH)

	Three Year Plan Estimate			Achievements		
	Total	Private Share	B.R.P.M Share	Total	Private Share	B.R.M.P. Share
TOTAL	84,050	74,050	10,000	82,610	72,467	10,143

2-3 Specific Projects

Certain projects envisaged under the Three Year Plan were abandoned or postponed (fluorine) and others, unscheduled were added in 1966. These concerned particularly the Imiter, Tiouine, Tazalaght pyrrhotine ash projects and the Riff iron-mines.

Achievements were well within the estimates and participation of private funds in financing these projects was very much less than forecast.

The projects not scheduled under the Plan accounted for 6 million DH of investment in 1967.

Total investment and B.R.P.M. share

PROJECT	Three Year Plan Estimates		Three Year Plan Achievements	
	Total	B.R.P.M Share	Total	B.R.P.M. Share
Specific projects	49,700	15,000	15,100	13,600
Fitting out the Kettara mine	16,110	-	22,700	-
Specific projects not scheduled under the Plan	-	-	6,000	5,800
GRAND TOTAL	65,810	15,000	43,800	19,400

3 - Cherifian Phosphates Office (O.C.P)

The production and sales forecasts over the Three Year Plan amounted to 36,000,000 tons of phosphates. Actual production was only 30,460,000 tons.

Investment (Expansion Budget)

(in 1,000 DH)

- Three Year Plan estimates..................	352,310 DH
- Achievements of the Plan	259,097 DH

4 - Private Sector (mines worked in 1964)

Investment (in 1,000 DH)

- Three Year Plan estimates	36,313
- Achievements	68,916

The table below compares the estimates of the Three Year Plan with the achievements, substance by substance, both for output and marketing.

Summary of production and marketing

(tons of marketable product)

SUBSTANCE	Estimates of the Plan	Achievements	
	Production and Marketing	Production	Marketing
Phosphates	36,000,000	30,460,000	30,410,000
Iron	775,000	1,021,000	929,800
Lead (a)	300,900	343,300	341,600
Zinc	115,400	275,500	272,600
Cobalt	39,000	50,200	53,630
Copper	16,500	23,250	23,110
Antimony	7,050	9,760	8,800
Barite	360,000	325,200	325,900
Smectite (b)	90,000	102,100	104,920
Tin	60	54	51
Pyrrhotine	854,000	760,000	711,300
Fluorine	19,500	3,000	1,440
Crude oil	-	305,000	-
Natural gas		33,648,000m3	-

(a) Ore exported and ore sold to the foundry - b) ore sold in Morocco or exported.

Summary Table of Investment Extimates and Achievements

(1,000 DH)

	Estimates	Achievement	%
Mining Division	200	200	100%
Geology	9,290	9,030	97%
B.R.P.M.			
General research	10,500	10,130	96%
Petroleum research	84,050	82,610	98%
including B.R.M.P. share:	(10,000)	(10,143)	101%
Specific projects	65,810	43,800	65%
B.R.P.M. share:	(15,000)	(19,400)	130%
P.C.P.	352,310	259,097	74%
Private sector			
Existing mines	36,313	68,885	190%
GRAND TOTAL	558,473	473,752	85%
State share	44,990	48,903	109%

II - GENERAL POLICY TRENDS OF THE PLAN IN THE MINING SECTOR

The Five Year Plan aims to produce and utilise to the maximum the natural resources contained in Morocco's soil and sub-soil.

In view of the limitations of the home market, mining output is mainly exported. A vigorous sales policy is therefore vital to ensure stable markets for certain products and in order to sell the maximum quantities under the most favourable conditions. Legislative measures for this purpose have been envisaged.

The second objective of the mining policy is the maximum utilisation of sub-soil products by ore treatment and enrichment, taking into account the economic aspects of the operations. This profitability aspect imposes a number of restrictions which must be taken into account (reserves, exposure of ore, yield, site, etc.) and necessitated a selection being made from among the various projects studied.

Taking into account the gradual exhaustion of certain mining deposits and the need to maintain and expand potential, intensive efforts will be undertaken in the field of mining exploration.

General research, whether geological and mining or petroleum is in the forefront of the Five Year Plan's priorities as this type of research increases and renews Morocco's patrimony.

III - THE PROGRAMME

1 - Summary

The new development project in respect of mining production retains the same objectives as under the Three Year Plan 1965-1967 and aims to develop mining potential and ensure its expansion.

- the expenditure under the mining and geological research programme and administrative investment amounts to 55,295,000 DH, including 45,610,000 DH for which the State will be responsible.

- the expenditure under the petroleum research programme will amount to 138,800,000 DH, including 64,320,000 DH for which the B.R.P.M. will be responsible.

- the total investment under the Plan for these specific projects is 254,381,000 DH, including more than half in foreign exchange. Out of these 254,381,000 DH, 190,536,000 DH will be chargeable to the State.

- the investment envisaged for mines being worked in 1968 over the five year period amounts to 91,510,000 DH.

- the O.C.P. has prepared an expansion budget of 722,552,000 DH.

2 - Mining and geological research

Apart from the exploration work undertaken by existing mines to renew their own reserves, mining and geological research, excluding hydrocarbon research which is investigated separately, will be carried out mainly by the Directorate of Mining and Geology and by the B.R.P.M.

2-1 Mining Division

Increase in ore stocke from the deposits worked by the craft-industry co-operatives

Aid will be given to the exploration work aimed at renewing the reserves of the deposits mined by the small craft-industries co-operatives whose facilities are very limited, particularly in respect of manganese. Certain copper deposits will be mined on a craft-industry basis along the lines of the system adopted successfully for lead and manganese.

Credits planned:
Manganese = 400,000 DH
Copper = 500,000 DH

Total = 900,000 DH

2-2 Geological Division

a) Systematic research

i) Aeromagnetism:

An aeromagnetic map to the scale of 1/100,000 covering the whole of the country is planned in order to outline the problems posed both in respect of deposits revealed by magnetic means and to resolve a series of problems concerned with the sedimentary basin. This survey will be carried out in the northern half of the country which can be covered entirely by maps of different scales, depending on the importance of the problems.

An aeromagnetic survey of the Riff is also urgent where oil is likely to be found and of the paleozoic area of central Morocco.

Credits planned: 3,000,000 DH

ii) Geophysical equipment

Methods will be tested mainly by the Geophysical Department and various scientific equipment (magnetometers, recorders) will be needed.

Credits planned: 34,000 DH

iii) Surveys and preparation of geological maps:

Normal work aimed at providing the country with systematic geological and geotechnical maps on different scales will be continued. The credits envisaged will include the explanatory notes which are essential documents accompanying these maps.

Credits planned: 2,000,000 DH

iv) Publication of the specialised quarterly review: "Mines et Géologie" ("Mining and Geology")

This review will be responsible for publicising the work of the Directorate of Mining and Geology and of the mining sector in general. Publication will continue throughout the duration of the Five Year Plan.

Credits planned: 200,000 DH

b) Exploration of the sedimentary basins to search for oil, deep water and for geothermic research:

i) Hydrocarbons (RIFF)

A credit of 950,000 DH is allocated for the geological survey of the Riff.

ii) Geothermic survey and search for deep water:

A study of the structure of the sedimentary basins may lead to the discovery of deep underground water supplies and possibly of steam which could be exploited in the form of geothermal energy.

- Deep water:

The survey will be made in eastern Morocco and the eastern Riff in the following regions:
Gharb, Guerouaou, Kert, Rekkah and the southern upper plateaux.

The credits envisaged under the Plan will amount to 3,000,000 DH.

- Geothermics

This project covers the main plio-quaternary volcanic regions. The work to be carried out can be broken down as follows:

- preliminary geological and hydrogeological survey with exploration by geophysical methods.

The credits envisaged will amount to 400,000 DH.

iii) Geochronology

Geochronological analyses for the different research projects will be important; continuing efforts will therefore be made to fit out laboratories and this will require credits of 600,000 DH.

c) Prospection of mineral deposits

Research projects on mineral deposits under the Geological Division can be broken down by substance as follows:

- Lead-zinc - "Meseta Oranaise" project searching for hidden seams;
- Copper - Search for new deposits;
- Sulphur - Exploration of favourable areas by means of an airborne magnetometric survey;
- Iron - a magnetic aerial survey of the Tenefert-Bou Karoum area is planned in order to determine the extent of the indications already found.
- Radioactive ore - in the light of studies carried out both overseas and in Morocco the following questions will be studied:

The uranium content in phosphates
The sandstone Acadian formations of the Anti-Atlas
The Triassic formations at Argana-Bigoudine
The Precambrian detrital formations

- Rare earths: The following two questions are envisaged: The rare earths in phosphates, the question which is very closely linked to that of uranium.

The niobiferous carbonatites at Tamazert.
- Various metals (cobalt, nickel, tungsten, antimony - gold)
- Potassium: general surveys aimed at improving our knowledge of the structure of Moroccan deposits by studying a pilot zone selected in the Guercif area.

- Useful substances: these are siliceous sand, pyrophyllite, keiselguhr, dolomite. Other explorations will continue to search for deposits of substances of which there is great need: (clay for the ceramic industry, siliceous sand for window glass, ochre, titanium dioxide, talc and amiantus).

Credits allocated:	6,200,000 DH

c) Occupational training:

- Rabat Mining College: the building and fitting out schemes in addition to the work carried out under the Three Year Plan will necessitate credits amounting to 400,000 DH, the details of which are broken down in the section on the Training of Senior Grades.

- Practical Mining College at Touissit: further improvements are also planned at Touissit and again these are detailed in the section on the Training of Senior Grades (100,000 DH)

d) Administrative investment.

- Hydrocarbon Laboratory: Fitting out the petroleum products laboratory will be completed to enable it to carry out all the controls concerning the characteristics of petroleum products laid down by the "Hydrocarbons Code". This equipment will cost 100,000 DH.

SUMMARY : DIRECTORATE OF MINING AND GEOLOGY

(in 1,000 DH)

1) Craft-industry co-operatives

2) Systematic Exploration
   - Aeromagnetism
   - Geophysical equipment
   - Geological maps)
     Explanatory notes)
   - "Mining and Geology"

3) Sedimentary basins
   - Riff project (research section)
   - Deep water
   - Geothermics
   - Geochronology

4) Mineral deposits
   - Lead zinc
   - Copper
   - Sulphur
   - Iron
   - Radioactive ore
   - Rare earths
   - Various metals
   - Potassium
   - Useful substances

5) Administrative investment

Total: Directorate of Mining and Geology

2.3. Research and Mine Shareholding Bureau

The B.R.P.M., among its other activities, carries out mining exploration by drilling and mining works for the purpose of discovering new deposits; it also carries out the preliminary studies before the newly discovered deposits are worked.

The Five Year Plan's programme will concern the following substances; the relative credits are shown in the summary table which follows the text.

a) Lead/Zinc/Silver: Prospection and work are planned mainly in the Riff, Beni Snassen, Middle-Atlas, Upper-Atlas at Midelt, Upper-Atlas at Marrakesh, central Morocco, Rehamnas and Siroua regions.

b) Copper: Search for new deposits and development of existing seams.

c) Sulphur: the B.R.P.M. will carry out work in the most favourable mining areas in the Haouz, the Upper-Atlas and Bahira.

d) Manganese: effective utilisation of the low-grade deposits and search to extend the deposits.

e) Radioactive ore: recovery of the uranium and a number of other low-grade elements (canadium, chromium, titanium, fluorine, rare earths) contained in phosphates will be investigated.

f) Rare earths: A sampling will be carried out of the niobiferous carbonatites in Tafraout.

g) Tungsten: Further work carried out on the Zguit.

h) Others: exploration and work on several basins.

Summary of the B.R.P.M. projects

	(in 1,000 DH)
- Lead/zinc	9,875
- Copper	15,250
- Sulphur and others	1,795
TOTAL	26,920

2.4 Private investment

This concerns research carried out outside the deposits being mined at present. Investment planned can be broken down as follows:

Copper	: Allous and Tataout (ONA)	1,350
Copper	: Bleida (Ait Othmane Mining Co.)	1,635
Copper	: Various, under convention with B.R.P.M.	5,700
Other deposits (Zellidja)		1,000
TOTAL		9,685

Summary of general mining research investment 1968-1972

	(in 1,000 DH)
1) Directorate of Mining and Geology	
a) Mining division	900
b) Geological division	17,690
c) Administrative investment	100
2) Research and Mine Shareholdings Bureau	26,920
3) Private sector	9,685
TOTAL	55,295
State share	45,610

3 - Petroleum exploration

The petroleum exploration programme under the Five Year Plan 1968-1972 has three aspects.

1) Work, the cost of which is borne entirely by private investors: ESSO (23,500,000 DH) and S.C.P. (10,000,000 DH), or a total of 33,500,000 DH.

2) Work being carried out on concessions under convention, a large proportion of which is financed by private consortia (particularly Petrofina) or 40,980,000 for the two groups and 17,120,000 for the B.R.P.M.

3) B.R.P.M.'s own exploration programme concerning Beni Mellal, Guercif, Ouarzazate, Tafilalet, the Palezoic area, the continental shelf and the Riff.

The estimated cost for carrying out this B.R.P.M. programme is 47,200,000 DH.

The total cost of petroleum research over the 1968-1972 period will amount to 138,800,000 DH; 74,480,000 DH will be borne by the private sector and 64,320,000 by the State.

3-1 Private sector expenditure

The private companies with responsibilities in this field are:

- ESSO who have obtained a concession for off-shore exploration off Tarfaya.

- The Société Chérifienne des Pétroles (SCP) which has already carried out research leading to exploitation of the oil fields of the Gharb and Essaouira; SCP intends to continue its activity over several concessions.

3-2 Expenditure by convention

There are two conventions in force at present: one is the B.R.P.M. - Petrofina convention and the second the Doukkala convention.

- B.R.P.M. - Petrofina convention: this convention involves the Sebou concessions covering 7,800 sq.km in the plain of the Gharb. The main objective of exploration lies in the sandy substances in the upper Miocene layer. The work envisaged under the Five Year Plan includes extensive drilling, aided by brief seismic programmes.

- The Doukkala convention: this convention involves the Doukkala concession which covers 9,300 sq.km. The very interesting possibilities here were revealed by the research carried out up to now. Extensive drilling is planned over the five year period interspersed with seismic programmes aimed at locating these possibilities and setting up drilling sites.

3-3 B.R.P.M. expenditure

The B.R.P.M. projects aim at carrying out a pre-exploration of the areas which have not yet been surveyed. The results of these investigations will constitute the B.R.P.M. contribution in the event of a partnership with private investors.

- **Beni Mellal**: the B.R.P.M. have carried out geological and geophysical work on this concession covering 2,620 sw.km.

Continued exploration necessitates a second seismic programme being carried out, resulting in the setting up of two medium-depth drilling sites. This first phase of exploration will be followed by a further seismic programme to be followed again by a third drilling.

This work can be carried out over three years (1968-1970) and the results obtained will determine the stopping or resumption of the exploration work on this concession.

- **Guercif**: Extensive geological work has been carried out on this concession (10,000 sq.km) mainly by the D.M.G. Further exploration of this concession can only be continued on a large scale, necessitating a seismic exploration programme followed by a detailed research programme.

This work will result in three drilling sites being set up; the whole of these operations will be extended over the five years of the Plan.

- **Tafilalet**: This project covers Hamada du Guir: evaluation of the seismic readings and then a detailed seismic programme.

Drilling sites will be set up under the following Plan. This project also includes top boring.

- **Ouarzazate**: core drill programme.

- **Palezoic area**: drillings at Doukkala have improved the yie from this region. Geological studies and a seismic programme have been carried out. Exploration of the Atlas range is also planned.

- **Marine Seismic programme**: In order to utilise the Atlantic continental shelf, seismic exploration of the off-shore zone will be needed. If successful this work will provide the B.R.P.M. contribution in any partnership agreements with private consortia.

- **Riff**: The Riff is a very promising but very difficult area. Apart from certain laboratory research work carried out by the Directorate of Mining and Geology, the B.R.P.M. will set up one stratigraphic drilling site.

INVESTMENT

(in 1,000 DH)

	State Budget	Private sectors	Total Investment
1 - Private groups			
ESSO	-	23,500	23,500
S.C.P.	-	10,000	10,000
2 - Conventions			
Doukkala	15,120	22,980	38,100
Sebou	2,000	18,000	20,000
3 - Projects			
B.R.P.M.			
Guercif	20,300	-	20,300
Beni-Mellal	7,800	-	7,800
Tafilalet	5,500	-	5,500
Ouarzazate	1,900	-	1,900
Palezoic	2,000	-	2,000
Marine seismic programme	4,000	-	4,000
Riff	5,700	-	5,700
TOTAL	64,320	74,480	138,800

The breakdown of expenditure for [illegible] research carried out by ~~the~~ B.R.P.M. is as follows:

(in 1,000 DH)

- Sebou
- Doukkala
- Guercif
- Beni Mellal
- Tafilalet
- Ouarzazate
- Paleozoic
- Marine seismic programme
- Riff Strategraphic drilling

TOTAL

4 - Specific projects

Specific projects have been drawn up for those strata where preliminary studies have indicated that exploitation is probable in the five year period.

These projects are either mines or factories treating products such as the dump from Tazalaght, Imiter and Tiouine.

There are two different types of specific projects: first, projects which are well known and which have been the object of economic and profitability studies and secondly, projects where only preliminary information is available and which are still being studied.

Projects of the first type will therefore be very detailed; the others will only be summarised, indicating their main characteristics and evaluations.

Depending on the results of present or future research it is possible that during the Plan transfers of credits will have to be made in respect of these projects from one project to another, or certain projects may even be abandoned or their programme modified. Nevertheless the programme in the main will be maintained.

These projects are summarised in the table below.

Summary of specific projects (investments)

(unit: 1,000 DH)

Project	Minerals	State budget	Private sector	Total investment
Upper Moulouya	Lead	21,500	21,500	43,000
Riff mines	Iron	100,000	-	100,000
Samine (El Hammam)	Fluorine	5,905	5,905	11,810
Tazalaght	Copper	2,565	-	2,565
Imiter	Silver	6,236	-	6,236
Tiouine	Manganese	3,860	-	3,860
Boumadine	Lead	3,620	-	3,620
Ouansimi	Copper	2,850	-	2,850
Oumjerane	Copper	1,750	440	2,190
Alous	Copper	9,000	21,000	30,000
Anti-Atlas	Copper	15,000	15,000	30,000
Khemisset	Potassium	18,250	-	18,250
TOTAL		190,536	63,845	254,381

The total investment allocated for these specific projects amounts to 254,381,000 DH, including more than half in foreign exchange; the State contribution can be calculated at approximately 190,536,000 DH.

Following this summary table, each specific project will be considered in order to determine its characteristics.

A detailed study for each known project shows precisely the characteristics and the various possibilities.

These projects which are known in detail and the main features of which will follow are:

- The Riff mines, - Tazalaght - Imiter - Tiouine - Samine -
- Lead - Upper Moulouya.

SPECIFIC CLEAR-CUT PROJECTS

RIFF MINES

Location: Nador, Province of Nador

Description: This project is intended to mine the deep sections of the deposits yielding a sulphide iron ore which is more difficult to market. This ore needs enrichment which the present installations cannot provide. Investments envisaged under the present scheme concern preparation of the new underground mine, installation of an ore concentration and agglomeration works (pelletisation) and providing the necessary infra-structure.

The new installations will enable 840,000 tons of 60% Fe ore to be produced in the form of pellets after 1970.

The Riff mines have in fact been taken over by the State.

Investment:

The total investment is estimated at 100,000,000 DH.

Summary Table of Investment Estimates

(in 1,000 DH)

Description of Operation	Investment
1) Extraction	
Shaft-sinking	5,750
Fitting out the mine-shaft	7,750
2) Concentration	
Civil engineering - Water supply	9,800
Equipment	15,950
3) Pelletisation	
Civil engineering	9,800
Tooling	20,250
4) Transport equipment	6,500
5) Others	9,200
Working capital and contingency fund	15,000
TOTAL	100,000

- **Trading Account**

Receipts - Exports of 840,000 tons of iron pellets will bring in 58,674,000 DH.

- Sales on the home market of pyrite production (70,000 tons) will bring in 2,100,000 DH .

Total receipts therefore amount to 60,774,000 DH.

(in 1,000 DH)

	Receipts	Expenditure
- Sales of iron pellets	58,674	
- Sales of pyrite	2,100	
- Intermediate consumption		40,626
- Wages		
Foreign Foremen and technicians		525
Moroccan foremen and technicians		700
Unskilled labour		4,434
- Financial charges		3,288
- Amortisation		4,700
- Ad Valorem tax		1,375
- Balance (gross profit)		5,126
TOTAL	60,774	60,774

The gross profit after amortisation and deduction of financial charges amounts to 5,126,000 DH.

- Employment: At present the mine is employing some 2,500 persons. Exploitation of the deeper strata should enable any major redundancies to be avoided. The table below shows the structure of the personnel to be employed in the new installations in addition to nearly a thousand workers who will keep their jobs.

Grade	Foreigners		Moroccans	
	Numbers	Wages	Numbers	Wages
Technicians	3	205,000	6	300,000
Foremen	8	320,000	20	400,000
Labour	-	-	675	4,434,000
	11	525,000	701	5,134,000

Samine Project (Fluorine)

Location: El Hammam, near Meknes

Description: This project consists in working a fluorine mine (Ca F2) by means of adits thereby avoiding the necessity of any major expenditure on extraction equipment. The life-span of this mine is some 10 years.

The production envisaged is 100,000 tons of ore, 62% Ca F2, producing, after washing, 50,000 tons of conentrates with a yield of 97% Ca F2.

There are therefore two distinct mining phases:

- Extraction: 100,000 tons a year with a total personnel of 191. CIF price of the run-of-mine at 62% Ca F2 = 125 DH/ton. Bank-head price = 88.27 DH/ton(plus 36.73 DH/ton for transport and marketing)

- Washery: Transformation of the 100,000 tons of run-of-mine into 50,000 tons at 97% Ca F2 with a CIF value of 250 DH/tons.

- Investment: The total investment is estimated at 11,810,000 DH, including working expenses, of which 6,110,000 DH will be in foreign exchange.

(in 1,000 DH)

Description of Operation	Investment
- Track and civil engineering	1,010
- Mining equipment	3,000
- Washing plant equipment	3,625
- Administrative facilities	335
- ~~Moun~~ting-Studies	840
- Working capital	3,000
TOTAL	11,810

Trading Account:

Receipts: 50,000 tons of concentrates at 97% Ca F2 at 250 DH/ton; or 12,500,000 DH.

(in 1,000 DH)

	Receipts	Expenditure
- Sales of 50,000 tons of concentrates	12,500	
- Intermediate consumption		7,967
- Wages and salaries		1,357
- Financial charges		448
- Ad Valorem taxes		478
- Amortisation		753
- Balance (gross profit)		1,497
TOTAL	12,500	12,500

The gross profit after amortisation and deduction of financial charges amounts to 1,497,000 DH.

Employment: Working of this mine will create 227 jobs which can be broken down as follows:

Grade	Foreigners		Moroccans	
	Numbers	Wages	Numbers	Wages
Technicians and Foremen	6	193,000	31	476,000
Labour			190	688,000
TOTAL	6	193,000	221	1,164,000

Imiter Project

Location: Imiter, between Ouarzazate and Ksar-Es-Souk

Description: The project will bring a washing plant into operation to process silver-bearing waste, the tailings from previous working of the mine.

This waste represents in the region of 540,000 tons of ore with an average yield of 298 g of silver per ton.

This tonnage is distributed in two distinct panels:

- a so-called rich panel containing some 356,000 tons with an average yield of 381 g/ton.

- a so-called poor panel containing some 188,000 tons with an average yield of 139 g/ton.

This washing plant has been planned to operate 300 days a year thus enabling 60,000 tons to be processed over the year. The so-called rich panel alone will keep the washery operational for six years.

The tonnage of silver recovered is in the region of 20,000 kg of silver a year.

Investment: The total investment is estimated at 6,236,000 DH, including 2,733,000 in foreign exchange and is broken down as follows:

(in 1,000 DH)

Description of Operation	Investment
- Equipment	4,260
- Transport	210
- Civil engineering, Buildings	450
- Technical and mounting services	600
- Working capital	716
- TOTAL	6,236

Trading account:

Receipts: Exploitation of the rich panel at 381 g/ton with 90% recovery: price of silver 1.29 dollars an ounce or 6.45 DH for 28.35 g of silver (the price of 1 g of silver is therefore 0.228 DH).

The total annual receipts are therefore 4,680,000 DH.

The poor panel will only be exploited if silver prices rise.

(in 1,000 DH)

	Receipts	Expenditure
- Annual sales	4,680	
- Intermediate consumption		2,184
- Wages		336
- Ad Valorem taxes		234
- Amortisation and financial charges		844
- Balance (gross profit)		1,082
TOTAL	4,680	4,680

The gross profit after amortisation and deduction of financial charges amounts to 1,082,000 DH.

Employment: Creation of 40 jobs, broken down as follows:

Grade	Foreigners		Moroccans	
	Numbers	Wages	Numbers	Wages
Technicians	2	70,000	4	80,000
Workers and employees			25 +9	186,000
TOTAL	2	70,000	38	266,000+ Drivers

Tazalaght Project

Location: The Tazalaght deposits are found in the Anti-Atlas (altitude 1,800 metres) 25 km east of Tafraoute and 236 km from Agadir.

Description: The project is aimed at developing the copper bearing waste at Tazalaght, the known tonnage of which amounts to 133,500 tons of ore at 3.2% copper and 32 g silver per ton and 166,500 tons of ore at 2.5% copper and 32 g silver per ton.

The normal output from working these ore reserves is in the region of 30-40,000 tons a year. In view of the above, exploitation is planned over a period of 7 years at a capacity of 120 tons x 300 days = 36,000 tons year of run-of-mine ore. Exploitation can start in 1968.

Investment: The total investment is estimated at 2,565,000 DH, including working capital, of which 400,000 DH is in foreign exchange.

Summary Table of Investment Estimates

(in 1,000 DH)

Description of Operation	Investment
- Studies, supervision	100
- Buildings, Civil engineering	880
- Mounting and Transport	260
- Other equipment	840
- Working capital and contingency fund	485
TOTAL	2,565

Trading account:

Receipts: The current price of copper is 5,320 DH/ton. On the assumption that: Copper = the rate adopted for calculation
4,200 DH/ton.
Silver = 1.29 dollars an ounce = 0.228 DH/g.
during first four years: annual receipts = 2,640,000 DH
during last three years: annual receipts = 1,985,000 DH.

The average annual receipts over 7 years are therefore as follows: 2,360,000 DH.

(in 1,000 DH)

	Receipts	Expenditure
- Sales of copper	2,360	
- Intermediate consumption (annual average)		1,032
- Wages		538
- Ad Valorem tax		110
- Amortisation and financial charges		265
- Balance (gross profit)		415
TOTAL	2,360	2,360

The average gross profit after amortisation and deduction of financial charges amounts to 415,000 DH.

Employment: Creation of approximately 75 jobs in the Tafraoute region.

Grade	Foreigners		Moroccans	
	Numbers	Wages	Numbers	Wages
Technicians	2	75,000	3	45,000
Unskilled labour			70	418,000
TOTAL	2	75,000	73	463,000

Tiouine Project

Location: Tiouine in the region of the Imini 40 km west of Ouarzazate.

Description: This project will set up a plant for the treatment of the Tiouine manganese in order to utilise certain low grade deposits in the Imini region.

The poor ore in this region is assessed at 363,000 tons with a yield in the region of 30-48% Mn. Added to this tonnage are 100,000 tons of waste and fines less than 1.6 mm.

The project proposes operation 12 hours per day 300 days a year for the washing plant, thus enabling 35,000 tons to be treated annually.

In view of present reserves a life-span of 13 years for this washery can be envisaged.

Investment

The total investment is estimated at 3,860,000 DH, including working capital, of which 2,100 is foreign exchange.

Summary of Investment Estimates

(in 1,000 DH)

Description of Operation	Investment
- Civil engineering, Buildings	670
- Equipment	2,040
- Transport	60
- Mounting - Start of Operation	310
- Interest	60
- Working capital	720
TOTAL	3,860

Trading account:

Receipts: price FOB Agadir of the concentrate obtained from one ton of run-of-mine ore: 205 DH x 52% = 106 DH/ton.

(output-weight of separation 52%)

or, for 35,000 tons treated each year, total annual receipts of 3,710,000 DH

(in 1,000 DH)

	Receipts	Expenditure
- Annual sales	3,710	
- Intermediate consumption		2,269
- Wages		197
- Ad Valorem taxes		112
- Amortisation and financial charges		413
- Balance (gross profit)		719
TOTAL	3,710	3,710

The gross profit after amortisation and deduction of financial charges amounts to 719,000 DH/year.

Employment: Effective operation of the washery will require 15 new jobs which can be broken down as follows:

Grade	Foreigners		Moroccans	
	Numbers	Wages	Numbers	Wages
Technicians	2	60,000	3	44,000
Unskilled labour			10	93,000
TOTAL	2	60,000	13	137,000

Upper-Moulouya Lead Project

Location: Zeida, north of Midelt, approximately 160 km south of the town of Meknes.

Description: Exploitation estimates are based on an annual production of 1,055,000 tons of run-of-mine ore at 3.2% lead on average, which should provide 37,250 tons of concentrates at 72.5% Pb. Exports should be in the form of concentrates or metal.

Investment:

The total investment is assessed at 43,000,000 DH, including working capital

Summary of the Investment Estimates

(in 1,000 DH)

Description of Operation	Investment
- Mining equipment	5,957
- Civil engineering installation work	6,680
- Crushing works	9,028
- Concentration and stocking of fines	9,900
- Administration other work) Engineering, working capital)	11,435
TOTAL	43,000

Trading account:

Annual receipts: 25,000,000 DH at 669 DH/ton

(in 1,000 DH)

	Receipts	Expenditure
- Annual sales	25,000	
- Intermediate consumption		14,249
- Wages		2,635
- Ad Valorem tax		1,130
- Amortisation and financial charges		5,505
- Balance (gross profit)		1,481
TOTAL	25,000	25,000

The gross profit after amortisation and deduction of financial charges amounts to 1,481,000 DH.

Employment: Some 170 jobs will be created accounting for 2,635,000 DH in wages and salaries.

Grade	Foreigners		Moroccans	
	Numbers	Wages	Numbers	Wages
Technicans	7	564,000	19	582,000
Unskilled Labour			144	1,489,000
TOTAL	7	564,000	163	2,071,000

Projects being studied

Bou Madine: Exploitation of a lead zinc, precious metals deposit situated 30 km south of Tinjdad.

The complexity of the deposit necessitates very extensive technical and economic studies and these have not been completed. A firm of consultants is studying exploitation of this deposit on behalf of B.R.P.M.

Working the deposit will depend on the results of this investigation. Only expenditure to be made during 1968-1969 has therefore been adopted, or 3,620,000 DH out of a total more than 30,000,000 DH.

If the investigation shows that exploitation of the deposit is feasible, the State will work the mine through the intermediary of the B.R.P.M.

Copper deposits:

The B.R.P.M. is at present investigating a number of copper signs among which it is thought that at least four may be sufficiently worthwhile to justify a decision to carry out exploitation towards the end of the Five Year Plan.

These projects are in the southern provinces (Tafilalet, Ouarzazate or Agadir) and work is scheduled to start in the years 1968-1971, the operating phase starting in the years 1970-1973.

First exploitation: OUANSIMI

Only 2,850,000 DH is scheduled to be invested (of which 850,000 in foreign exchange) under the framework of the Five Year Plan. The remainder, amounting to 5,150,000 DH including 2,850,000 in foreign exchange will only be invested after 1972.

Some 100 jobs will be created by 1972.

Second exploitation: ALLOUS

In this case investment estimates are considerably higher but the share of the B.R.P.M. is only 30% of total expenditure. The 30,000,000 DH allocated will be invested in 1968 and 1969.

Third exploitation: ANTI-ATLAS

The investment estimates are appreciably the same as for Allous, but with 50% of the cost being borne by the B.R.P.M. These investment figures will only be applicable for the years 1971 and 1972.

Fourth exploitation

The deposit at Oumjerane is one of the deposits where the present stage of studies enables start of the programme to be planned in the period; the cost will be 2,190,000 DH.

Investment in copper

	B.R.P.M.	Private sector	Total Investment
OUANSINI	2,850	-	2,850
OUMJRANE	1,750	400	2,190
ALLOUS	9,000	21,000	30,000
ANTI-ATLAS	15,000	15,000	30,000
TOTAL	28,600	36,440	65,040

Potassium at Khemisset

The potassium deposits discovered in the Khemisset basin will be exploited. Within the framework of the Five Year Plan the project, which has been centred on a radius of 10 km around Khemisset, will include a number of schemes. Known reserves at present amount to 250,000,000 tons of carnallite and 20 million tons of sylvite.

Present aims are therefore as follows:

1) Continuing research and investigations, with the aid of the special United Nations Fund, up to 1972.

2) If results are favourable, beginning of exploitation investment in 1973.

Research: Cost to the charge of the B.R.P.M. = 8,550,000 DH.

Exploitation: Investment under the Plan = 9,700,000, including 4,000,000 in foreign exchange.

Or a total during the Plan of 18,250,000 DH to be allocated.

Pyrrhotine ash

These studies to improve the process for the recovery of copper from pyrrhotine ash will continue throughout the period 1968-1972. The treatment plant will be built as soon as this process has been perfected.

5 - Cherifian Phosphates Office

A recently completed study of world phosphate markets indicates that exports of unrefined products, intended primarily for the manufacture of fertilisers, should continue to rise in the coming years at a relatively rapid rate.

Within the framework of these growth prospects and in spite of ever increasing competition on world markets, the Cherifian Phosphates Office aims at increasing its sales by 60% and its output by 68% during the period 1968-1972.

Investments to be carried out during the period 1968-1972 within the O.C.P. development programme are shown below.

- Centres already exploited (Youssoufia and Khouribga): 625,852,000 DH.
- Exploitation of Benguerir: 97,000,000 DH.

A distinction is made below between the development of centres already being worked and the specific project at Benguerir.

1. Centres being worked (Youssoufia and Khouribga)

1.1 Production forecasts

The table below shows the growth of production and the overall value of this production over the five years of the Plan.

Product	Output (thousands of tons)					
	1968	1969	1970	1971	1972	Total Plan
Phosphate 75% dried	6,230	7,000	7,880	8,730	9,230	39,070
Calcined phosphate 78/79% Youssoufia Calcined	- -	150 -	300 200	700 400	1,730 400	2,880 1,000
70/72% Phosphate Khouribga	1,250	1,250	1,250	1,250	1,250	6,250
70/72% Phosphate Youssoufia	2,570	2,870	3,000	3,000	3,000	14,440
80/82% Phosphate	950	950	950	950	950	4,7
GRAND TOTAL	11,000	12,220	13,580	15,030	16,560	68,390

Output will thus rise from 11 million tons in 1968 to 16,560,000 tons in 1972, or an increase of 5,560,000 tons, representing a rise of some 50% compared to 1968.

This output will be provided by the following two centres.

Youssoufia Centre: Extractions from this centre should rise from 2,570,000 tons in 1968 to 3,400,000 tons in 1972 from the two underground stations at present being mined and also from the discovery and working of a new sector.

Khouribga Centre: The Khouribga centre will continue to produce the grades being marketed at the moment, in other words the 70/72%, the 76/77% and the calcined 80/82%. It will also supply a new product assaying 78/79% of tricalcic phosphate.

The Office's expansion will depend to a large extent on this centre, the output of which should rise from 8,430,000 tons in 1968 to 13,160,000 tons in 1972, or an increase of approximately 56% over the five years.

1.2 Sales estimates resulting from the new expansion programme: (Khouribga, Youssoufia)

The Cherifian Phosphates Office policy will be to strengthen and consolidate the position of traditional markets, particularly in Europe and to obtain new markets (Asia, Oceania, South America) which offer ever increasing prospects.

The table below shows the sales programme over the next five years.

Sales forecasts

Product	Production (in thousands of tons)					
	1968	1969	1970	1971	1972	Total Plan
Phosphate 75% dried	6,000	6,300	8,000	8,140	8,170	36,610
Phosphate 75% calcined	230	250	330	330	330	1,470
Phosphate calcined 78/79%	-	150	300	700	1,600	2,750
Youssoufia Calcined	-	-	200	400	400	1,000
Phosphate 70/72% (Khouribga)	1,250	1,250	1,250	1,250	1,250	6,250
Phosphate 70/72% (Youssoufia)	2,570	2,870	3,000	3,000	3,000	14,440
Phosphate 80/82%	950	950	950	950	950	4,750
GRAND TOTAL	11,000	11,770	14,030	14,770	15,700	67,270

This table shows that the total volume of sales should increase from 11,000,000 tons in 1968 to 15,700,000 tons in 1972, or a rise of approximately 40% compared with 1968.

1.3 Investment estimates (excluding Benguerir)

The anticipated growth in output and sales involves major installations which will necessitate considerable investment, in the region of 625,552 DH, including a proportion of the carry-overs from 1967.

These major installations can be broken down as follows:

a) Mechanisation Fund;

The objective is to set up supporting chambers, machine-stoping and evacuation to replace the present system of hand-stoping and loading.

Increased mechanisation should ensure an increase in manpower productivity, a lower consumption of mining-timber and centralisation of stopes.

These chambers will require investments of 10,700,000 DH for Youssoufia and 12,500,000 for Khouribga.

b) Working of layer 2, Meraa-el-Arech

The aim is to work layer 2 which is 3 metres deeper than layer 1 (73/75%), exploited since 1966. This exploitation on the basis of 1,300,000 tons a year of enriched product 78/79% will require an investment for extraction and treatment by calcination of 163,250,000 DH between 1968 and 1971.

c) Working of Daoui Sud (Layer 1-2)

The Daoui region has been exploited since 1952 by open-cast mining (layer 1 : 73/75.) with a recovery limit of 15 m. In view of the improved efficiency of open-cast equipment, working of layer 2, which will be enriched to 78/79% by calcination and washing, should be gradually incorporated with working of layer 1.

The investment needed for a potential output of 2,150,000 tons a year of layer 1, 73/75%, added to 2,150,000 tons a year of layer 2, enriched 78/79%, or a total of 4,250,000 tons/year of high and very high-yield grades, will amount to 300,900,000 DH.

d) Port of Casablanca Development:

The port installations of the Casablanca Office need to improved and modernised to cope with export of the tonnages envisaged under the expansion programme.

The present projects will increase loading potential to 18,000,000 tons/year in 1970.

Investments planned are estimated at 50,000,000 DH, including 43,000,000 for super-structure.

e) Reconversion of the Youssoufia Centre:

The calcination and washing operations at the underground mines at Youssoufia will be mechanised; this will account for an investment of 47,050,000 DH for an output potential of 400,000 tons/year of 73/75%.

An open-cast station and working of a new station are also planned for 1972. This increase in potential from 2,285,000 tons to 3,400,000 tons/year (excluding treatment) will necessitate an investment of 93,450,000 DH.

f) Preparation of two new stations and development of the Khouribga plant:

In order to utilise the treatment potential of the drying and calcination plant at Khouribga for as long as possible, it was decided to set up two new stations to replace stations 2 and 6 which are nearly worked out.

Investments planned, excluding mechanisation, are estimated at 29,000,000 DH for a replacement potential of 3,645,000 tons/year for five years.

g) Increase in the drying capacity of the Beni-Idir plant.

This mine and its ancillary plant was planned for an output of 10,000,000 tons/year. The first section has been completed and work will be continued.

The corresponding investment is estimated at 7,750,000 DH.

h) Transport by conveyor belts between the Meraa and Daoui Centres and the Beni-Idir plant.

In order to carry out the programmes planned the capacity of the conveyor belt from Meraa and Arech to Beni-Idir will have to be increased by 50% and a conveyor installed from Daoui to Beni-Idir.

This will necessitate an investment of 41,200,000 DH taking the cost of infra-structure into account.

i) Maati-Tajder overburden:

Operation will be under direct State management. The cost of equipment will be 19,300,000 DH in 1968 with start-up planned for 1969.

j) The port installations at Safi.

Improvement of the storage and handling facilities for two grades of phosphate (70/72% standard - 78/79% calcined) will cost approximately 7,500,000 DH.

The table below summarises the total investment

O.C.P. Investment

(in 1,000 DH

Centre	Type of Operation	1968	1969	1970	1971	1972	Total Plan
Khouribga Centre	General extraction services	8,700	4,200	-	-	-	12,900
		5,300	7,050	900	3,500	-	16,750
		14,000	11,250	900	3,500	-	29,650
Oued Zem Office	Extraction	45,950	54,250	2,000	26,500	22,000	150,700
Beni-Idir Office	Extraction	25,440	21,300	11,500	5,000	-	63,240
	Handling						
	Transport	400	-	3,000	1,000	-	4,400
	Treatment	17,250	46,400	33,000	40,000	50,000	186,650
		43,090	67,700	47,500	46,000	50,000	254,290
Khouribga Office	Extraction	-	1,000	6,000	13,000	8,000	28,000
	Treatment	-	-	1,000	-	-	1,000
		-	1,000	7,000	13,000	8,000	29,000
Youssoufia Centre	Extraction	13,500	8,700	3,000	-	-	25,200
	Handling						
	Transport	11,000	13,450	-	-	-	24,450
	Treatment	15,000	24,100	-	-	-	39,100
	General services	1,000	2,700	1,000	-	-	4,700
		40,500	48,950	4,000	-	-	93,450
Casablanca Centre	Handling	26,500	9,500	-	-	-	36,000
Safi Centre	Handling	-	-	200	4,500	2,800	7,500
Partial total		170,040	192,650	61,600	93,500	82,800	600,590
THREE YEAR PLAN COMPLETION CREDITS							24,962
GRAND TOTAL							625,552

1.4 Other investment

In addition to the expansion investment O.C.P. will carry out investment in standard techniques (renewal and displacement of equipment), studies and research, occupational training, administrative and social improvements.

There is also a contingency budget amounting to 84,000,000 DH.

The total investment amounts to 292,345,000 DH. The table below shows the breakdown and programming of the investments.

Other investments (in 1,000 DH)

Type	1968	1969	1970	1971	1972	Total
Standard techniques	29,820	17,000	20,000	22,000	24,000	112,820
Study and research costs	10,531	8,000	8,000	8,000	8,000	42,531
Social budget	9,407	9,251	9,243	9,243	9,243	46,387
Administrative budget	1,255	600	600	600	600	3,655
Occupational training	2,094	149	157	157	157	2,714
Contingency fund	21,983	26,365	11,660	12,550	11,680	84,238
TOTAL	75,090	61,365	49,660	52,550	53,680	292,345

2. BENGUERIR

Because of the important part the Benguerir Centre will play, (10 million DH in 1980) all the investment required for its working and future development has been grouped under one specific project.

The Benguerir deposit extends from Youssoufia to El Kelaa-des-Sharna. The phosphate sedimentation is particularly rich (6 mining layers). The overburden and intercalations are composed of strata, the hardness of which is considerably below the accepted limits for mining by bucket-wheel which is the most economic method for open-cast mining of extensive sedimentary deposits. Exploitation will be linear.

Present reserves are assessed at over 600 million tons

2.1 Exploitation

Short-term. The immediate objective is the production of 2 million tons of low-grade phosphate (65%). Exploitation will begin in 1970 with 650,000 tons, reaching 2,000,000 tons in 1972.

Long-term. This centre should be producing 10 million tons approximately around 1980. Before this, however, certain problems will have to be resolved:

- a considerable proportion of the deposit's reserves is made up of a medium-grade layer of 55% BPL. Exploitation will depend on perfecting a treatment process (at present at laboratory research stage).

- exploitation of a centre producing 10 million tons/year necessitates a long period of commercial and economic study and the execution of certain infra-structure work.

The project for 2 million tons/year, therefore, is only a start.

Production and Sales

The table below shows the production and sales at Benguerir.

(in 1,000 tons)

	1968	1969	1970	1971	1972
Production	-	-	650	1,000	2,000
Sales	-	-	650	1,000	1,800

2.2 Investment

O.C.P. Investment

O.C.P. will invest 97 million DH on the first stage exploitation of 2 million tons/year.

(1,000.000 DH)

	1968	1969	1970	Total
Extraction	18	31	10	59
Handling and Transport	2	2	3.3	7.3
General and central services	3	4	1	8
Treatment	5	7	10.7	22.7
TOTAL	28	44	25	97

2 - O.N.C.F. Investment

In addition to the O.C.P. investment the O.N.C.F. (National Railways Board) will carry out certain investment projects for transportation of production to Safi.

Rail link between the mine and the station at Benguerir

The loading station at Drabil will be linked to Benguerir railway station by a 12 km siding. In order to avoid any disruption between the phosphate traffic and the Casablanca-Marrakesh line, this side-line will pass under the main-line and join up with track system in the western section of the Benguerir station.

Work needed to increase the capacity of the Benguerir-Safi line

To cope with the traffic to Safi, the O.N.C.F. will build a new shunting-loop at Bidane and improve those at El aria, Youssoufia and Bouguedra. Work at Youssoufia will be extensive as a result of the simultaneous increase in through- and local-traffic .

Replacement of the Benguerir-Safi line

The Benguerir-Safi line was laid in 1937 with light equipment recovered from the Casablanca - Sidi-Kacem line where it had been in service since 1923.

This track cannot take any increased traffic. It will be replaced to take a planned 15 million ton traffic in 1980. Double track will only be laid in 1975.

Rolling stock

In order to cope with the increased traffic on the Benguerir-Safi line, the O.N.C.F. will purchase two 3,600 hp diesel electric locomotives and two tipping trains.

Others

Under this heading come additional equipment and improvement to rolling stock maintenance works, new tooling and staff accommodation.

These investments, given here as a reminder and detailed in the section on infra-structure, amount to 70 million DH.

Road from the mining centre to the Benguerir-Marrakesh highway

The present road (4 m) should be strengthened and widened (7 m); the cost, again given here as a reminder, is estimated at 1,200,000 DH.

Port of Safi

In 1980 the Port of Safi should be able to export 15 million tons of phosphate, approximately 10 million from Benguerir and 5 million from Youssoufia. The present port could not cope with such a volume of traffic. The O.C.P. only has 250 metres of wharves available. In 1980 the Port of Safi should also be able to load vessels of at least 60,000 tons.

For this purpose extension work, dredging and swell control installations will be required.

This port development programme will be completed by 1974. The cost of improving the port over the period 1968/1972 is estimated at 42 million DH.

Electricity

The mine will be connected to the national grid by a 150 kw cable, the cost of which is estimated at 4,800,000 DH.

Water supply

1) In the short-term, water requirements will be:

15 litres/s for the mine
25 litres/s for Benguerir as a result of the increase in population caused by exploitation of the Benguerir deposit.

The investment is estimated at 2 million DH.

2) In the medium-term, for the purposes of manufacturing fertiliser from the Benguerir phosphate, water supply from Sidi Cheho will be needed. This project will be incorporated under the Oum-Er-R'bia water distribution project.

Accommodation

During the first stage the mine will employ some 350 staff approximately as follows:

- 20 engineers and senior grades
- 80 intermediate grades and foremen
- 250 labourers.

A township will be built for staff, the cost of which is estimated at some 10 million DH.

Summary of investment at Benguerir

The table below shows the investment required for exploitation at Benguerir and for its subsequent expansion.

Description	Contractor	Cost (in 1,000,000 DH)
Mining investment	O.C.P.	97
Railway track	O.N.C.F.	70
Port of Safi	Mininstry of Building and Public Works	42
Road	-do-	1.2
Water supply	-do-	2
Electricity	O.N.E.	4.8
Accommodation	Ministry of the Interior	10
TOTAL		227

However, apart from the 97 million dirhams relative to mining investment, the cost of the infra-structure is dealt with under the corresponding sections.

CONCLUSION (O.C.P.)

Production will rise from 11,000,000 tons in 1968 to 18,560,000 tons in 1972, or an increase of 7,560,000 tons (68%).

Sales will increase from 11,000,000 tons in 1968 to 17,500,000 in 1972, or an increase of 6,500,000 (60%).

The value of sales over the five years can be estimated at 3,820 million DH.

Investments to be carried out by the O.C.P. during the 1968-1972 period will be 722 million DH, including 97 million DH for Benguerir.

The cost of working Benuerir, however, amounts to 130 million DH.

The normal O.C.P. budget (maintenance investment) amounts to 292 million DH.

6. Existing mines

Because of the difficulty in forecasting future movements of the ore market, all estimates concerning existing mines were make on the assumption that prices would remain appreciably at present levels, or, in certain cases, would be lower.

The appreciable increase in sales of pyrrhotine and phosphate on the home market is to be noted.

Furthermore, estimates concerning the Riff iron mines go no further than 1970 and are listed below beyond 1971 under specific projects.

Lead: Production and sales (in 1,000 DH)

	1968	1969	1970	1971	1972	Total Plan	Bank-head value
Production (in tons)	110,400	114,000	100,000	100,400	100,500	525,300	325,740
Exports (FOB value)	53,420	52,900	53,800	54,400	54,600	269,120	
Home sales (bank-head value)	22,300	24,300	14,900	15,400	15,400	92,300	

Zinc: Production and sales

	1968	1969	1970	1971	1972	Total Plan	Bank-head value
roduction	82,200	86,300	25,700	21,900	21,900	238,000	77,750
xports (FOB value)	30,100	31,700	9,600	8,100	8,100	87,600	

c) Manganese ore

Manganese production will be maintained at a steady level over the period of the Plan from the deposits at Imini which produce the major proportion of the ore.

The ore from Imini will continue to be absorbed by its usual buyers but the F.O.B. price, adopted for the five year period is lower than the present price, to take into account the present unfavourable state of the market.

Manganese: Production and sales (in 1,000 DH)

	1968	1969	1970	1971	1972	Total Plan	Bank-head value
roduction(in t) etallurgic manganese	216,500	221,000	221,500	222,000	223,000	1,104,000	74,130
xports (FOB) of etallurgic manganese	11,650	12,570	12,570	12,570	12,570	61,930	
roduction (in t) f chemical manganese	70,000	70,000	70,000	70,000	70,000	350,000	63,700
xports (FOB Val.) f chemical manganese	18,690	18,690	18,690	18,690	18,690	93,450	
inter (FOB Val.) (in M. DH)	15,300	15,300	15,300	15,300	15,300	76,500	

In conclusion it should be noted that because of its importance, phosphate mining has been dealt with separately and no details are given here.

6.1. Production and Marketing (1)

a) Iron Ore: The mines at Uixan and Setolazar are both situated in the province of Nador and supply practically all Morocco's iron ore. These two mines, the certain ore reserves of which are assessed at 20 million tons, will be reconverted under the Five Year Plan. Mining will be devoted exclusively to sulphide ore which, under the present system of roasting treatment is difficult to market. These mines have been taken over by the State and new enrichment installations will be built in order to manufacture the more easily marketable pellets.

These new schemes have been studied under the specific projects (Riff mines). In spite of the ever increasing competition on European markets, the production and sales forecasts for the five years of the Plan are as follows:

Iron ore - Production and Exports

(values - in 1,000 DH)

	1968	1969	1970	1971	1972	Total Plan	Bank-head value
Production	671,000	648,000	648,000	(a)	(a)	1,967,000	70,560
Exports - Tonnage	450,000	400,000	400,000	(a)	(a)	1,250,000	
FOB value	17,780	15,820	15,820			49,420	

a) See specific projects

b) Lead and Zinc Ore:

Lead and zinc are mined from several deposits throughout Morocco, the main ones being situated at Boubecker, Touissit, Djebel Aouam (lead-zinc), Aouli and Mibladen and the whole of the lode at Tafilalet (lead).

Price variations noted over past years induce a certain caution in making forecasts. A price has been adopted for the five year period of 1,120 DH/ton for lead metal (present price) and 1,260 DH/ton zinc metal (1.40 DH lower than present price).

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(1) Anthracite (see under "Power"); Phosphate (see paragraph 5).

d) Pyrrhotine: The increase in production of pyrrhotine from 500,000 tons in 1969 to 1,250,000 tons in 1972 will be incorporated with the project to build a second chemical plant or to expand the Safi plant.

Pyrrhotine: Production and Sales

	1968	1969	1970	1971	1972	Total Plan	Bank-head value
Production (in t)	500,000	500,000	500,000	500,000	1,250,000	3,250,000	101,400
Home sales (at minehead) (in 1,000 DH)	15,560	15,560	15,560	15,560	39,160	101,400	

e) Production and sales forecasts for other ores are given in the tables below:

Production estimates (in tons)

	1968	1969	1970	1971	1972	Total Plan	Bank-head value
Crude oil	90,000	86,000	63,000	35,000	24,000	298,000	26,820
Natural gas (in 10,000 m3)	80,000	80,000	80,000	80,000	80,000	400,000	50,500
Copper	7,920	7,740	7,730	7,700	7,680	38,770	53,730
Cobalt	13,500	13,500	6,500	-	-	33,500	26,170
Antimony	2,490	2,360	2,430	2,495	2,520	12,295	11,010
Barite	125,000	125,000	135,000	135,000	136,500	656,500	19,650
Smectite	36,000	40,000	41,000	41,000	42,000	200,000	4,760
Tin	23	33	33	60	60	209	2,185
Ghassoul	2,500	2,500	2,500	2,500	2,500	12,500	1,500
Rock salt	35,000	35,000	35,000	35,000	35,000	175,000	3,500

Export estimates (FOB value in 1,000 DH)

	1968	1969	1970	1971	1972	TOTAL PLAN
Copper	12,490	12,310	12,280	12,210	12,190	61,480
Cobalt	11,300	11,300	5,660	-	-	28,260
Antimony	2,490	2,350	2,360	2,470	2,570	12,240
Barite	7,380	7,380	7,970	7,970	7,970	38,670
Smectite	1,120	1,280	1,320	1,320	1,360	6,400
Ghassoul	400	400	400	400	400	2,000

Home sales forecasts (bank-head value in 1,000 DH)

	1968	1969	1970	1971	1972	TOTAL PLAN
Crude oil	8,100	7,740	5,670	3,150	2,160	26,820
Natural gas	10,100	10,100	10,100	10,100	10,100	50,500
Barite	380	380	380	380	380	1,900
Smectite	225	240	240	240	240	1,185
Tin	235	345	345	630	630	2,185
Ghassoul	150	150	150	150	150	750
Rock salt	1,330	1,330	1,330	1,330	1,330	6,650

Summary Table

Summary of sales from existing mines

	1968	1969	1970	1971	1972	TOTAL PLAN
Bank-head value of production (in 1,000 DH)	210,515	213,175	176,025	169,075	167,915	936,705
Bank-head value of home sales (in 1,000 DH)	58,380	60,145	48,675	46,940	69,550	283,690
FOB value of exports (in 1,000 DH)	182,120	182,000	155,770	133,430	133,720	787,040

6.2. Investment

Investment in existing mines will be directed mainly towards mining exploration (60-70% of overall investment) with the aim of renewing or expanding reserves of ore being exploited at present.

The treatment of ore therefore accounts for a considerable share of investment, varying at present from 10 to 20%. This will involve renewal of equipment and improvement of techniques aimed at achieving a higher percentage of ore recovery.

Investments of a social character (accommodation, occupational training) will account for some 10% of the total investment.

The total investment for the five year period is in the region of 91,510,000 DH, including 29,430,000 in foreign exchange and can be broken down, substance by substance and year by year, as follows:

SUMMARY OF THE INVESTMENT ESTIMATES FOR EXISTING MINES

(in 1,000 DH)

Substance	1968	1969	1970	1971	1972	TOTAL PLAN
Iron	2,600	1,850	(a)	(a)	(a)	4,450
Lead-Zinc	11,200	11,300	8,800	8,800	8,300	48,400
Manganese	3,530	2,870	2,740	2,080	2,550	13,770
Copper	1,600	1,300	1,300	1,200	1,100	6,500
Cobalt	740	700	-	-	-	1,440
Antimony	750	850	600	750	750	3,700
Barite	3,940	860	1,120	460	460	6,840
Smectite	30	30	30	30	30	150
Rock salt	50	50	50	50	50	250
Pyrrhotine	3,520	710	640	570	570	6,010
GRAND TOTAL	27,960	20,520	15,280	13,940	13,810	91,510

(a) See specific projects

6.3. Other factors

a) Employment

The employment forecasts for the existing mines show a slight reduction in the labour-force. This reduction, however, will be largely offset by the exploitation of specific projects.

b) Transport costs

This accounts for some 25% of the value of production which represents a very heavy burden to be borne by the mining industry.

These costs have been calculated at more than 200,000,000 DH (excluding anthracite) or an annual average of 40 million DH.

c) Power

The power requirements of the mines will cost some 15 million DH a year.

Nearly all the large mines are connected to the O.N.E. national grid. Approximately 85% of expenditure is for the purchase of electricity from the O.N.E.

Conclusion

The mining sector will account for an incremental value of 810 million DH in 1972, or 5.5% of the national incremental value (G.N.P.)

This sector will also continue to employ 28-30,000 persons and will be an important factor in the trade balance as in 1972 the inflow of foreign exchange will be in the region of 1,000 million DH and home sales some 200 million DH.

The table below shows mining production by tonnage and by val for all mines, including the various projects to be initiated.

Table 16. Mining Production (in 1,000 tons)

Substance	1968	1969	1970	1971	1972	TOTAL PLAN	Bank-head value 10^3 DH
Anthracite				see Power			
Crude oil	90	86	63	35	24	298	26,820
Natural gas (10,000 m3)	80	80	80	80	80	400	50,500
Barite	125	125	135	135	135	655	19,650
Iron	671	648	648	1,210	1,210	4,387	175,240
Pyrite	-	-	-	70	70	140	3,600
Lead	110	114	125	126	127	602	372,440
Zinc	82	86	26	23	29	246	79,950
Metallurgic manganese	217	221	221	222	223	1,104	74,130
Chemical manganese	70	70	87	88	87	402	71,800
Copper	8	10	10	12	12	52	83,050
Cobalt	14	13	7	-	-	34	26,170
Antimony	2.5	2.4	2.4	2.5	2.5	12.3	11,010
Smectite	36	40	41	41	42	200	4,760
Pyrrhotine	500	500	500	500	1,250	3,250	101,130
Tin	0.024	0.033	0.033	0.060	0.060	0.21	2,185
Ghassoul	2.5	2.5	2.5	2.5	2.5	12.5	1,500
Rock salt	35	35	35	35	35	175	3,500
Fluorine	-	-	50	50	50	150	26,490
Silver	-	-	-	21,300kg	26,500kg	47,800kg	9,080
Gold	-	-	-	18kg	50kg	68kg	320
Total value in 1,000 DH	210,515	216,745	206,475	242,125	267,465	1,143,325	1,143,325
Phosphates:							
Production (M/ton)	11,000	12,220	14,230	16,030	18,560	72,040	
Sales (1000 t)	11,000	11,710	14,680	15,770	17,500	70,720	
Value FOB of sales (in 1,000 DH)	594,900	661,500	762,650	864,500	996,200	3,879,750	

These estimates will only be achieved if considerable investment is made; the amount and distribution of this investment are summarised in the table below:

(in 1,000 DH)

	State Budget	Private sector	Total Investment
1 - Directorate of Mining and Geology			
1.1 Mining Division	900	-	900
1.2 Geology Division	17,690	-	17,690
1.3 Administrative Investment	100	-	100
2 - B.R.P.M. (General research)	26,920	-	26,920
3 - Private Sector (General Research	-	9,685	9,685
4 - Petroleum exploration			
4.1 Private sector	-	33,500	33,500
4.2. Conventions	17,120	40,980	58,100
4.3. B.R.P.M.	47,200	-	47,200
5 - Specific Projects	190,536	63,845	254,381
6 - O.C.P. (expansion)			
6.1 Khouribga Centre	-	625,552	625,552
6.2. Benguerir Centre	-	97,000	97,000
7 - Other mines being worked	-	91,510	91,510
TOTAL	300,466	962,072	1,262,538

The total mining investment to be carried out during the period 1968-1972 is 1,262 million DH.

- 300 million will be financed from the State equipment budget;
- The expansion budget for the State undertaking O.C.P. is 722 million DH;
- The private sector will invest 240 million DH.

In addition, however, to the expenditure on renewal of equipment and the O.C.P. administrative and non-social investment (292 million DH) the working of Benguerir will involve a down-stream and upstream investment of 130 million DH (of which a summary is given in the appropriate sections).

IV - REGULATIONS AND LEGISLATIVE MEASURES

1 - The needs of the mining industry

A survey of the situation in the mining industry over the past ten years shows an overall picture of deterioration of the results of mining undertakings, with all the attendant consequences in respect of research, working new deposits and recovery of deposits in the mines being worked.

International competition on the ore market, which is partly responsible for this situation, is unlikely to ease over the coming years. This necessitates the adoption of certain measures to strengthen the position of the Moroccan mining industry, particularly of a legislative nature which, by easing the tax burden, will encourage new investment in mining research and equipment and will make workings more competitive.

- Mining production: The difficulties are numerous and it is essential that the best use is made of existing resources by the rational and fullest possible working of the mines as the resources of the latter are not inexhaustible.

In fact, in order to align their prices to international rates for ore in a difficult period, existing mines tend to work deposits selectively; this, in fact, is tantamount to abandoning the lower-grade sections, thereby reducing the quantity of ore recoverable.

- Mining research: Existing facilities seem to be adequately suited to research requirements. Present legislation enables provision to be made for the "reinstatement of deposits" by means of a deduction from profits. This reserve for the reinstatement of deposits could also be used for the exploration of new deposits.

- Ore Valorisation and Treatment: The substances extracted from the mines, before delivery on the market, all receive a certain valorisation by enrichment carried out at the extraction site.

For certain ores (iron, manganese) this enrichment can be considerably improved and for others (lead, zinc, copper), transformation into metal is feasible or else markets can be set up in the Moroccan chemical or allied industries.

It is desirable to ease considerably the excessive charges of the present situation borne by the mining industry on these three fronts: mining production, mining research and valorisation of ores.

2 - Measures

a) Ad valorem tax

Certain substances are already exempt (anthracite, low-grade manganese).

The future prospects of the mines, excluding phosphates, are not particularly favourable and it is quite conceivable that the export tax tends to discourage investment in exploration and mining.

By increasing the cost price of the ore extracted, this tax also penalises an industry which exports the major proportion of its output. The possibility of abolishing this tax will be looked into.

The total amount of the ad valorem tax over the five years of the Plan is in the region of 33 million DH, or an annual average of approximately 6,600,000 DH (excluding phosphates).

b) Conferring the benefits of the Investment Code to mining projects, irrespective of the provision for "reinstatement of deposits". Mining industries will be entitled to the same benefits as other industries.

This Investment Code, which will be extended to the mining sector, specifies the conditions under which customs exemption, taxation allowances, the guarantee of re-exporting capital and equipment subsidies will be granted.

c) Extension to all mines of the present ability of salt and phosphate mines to recover the tax on goods and services which they pay for goods destroyed during the exploitation process.

d) Transport: It is important that steps be taken to ensure that O.N.C.F. do not modify present prices without formal agreement of the Mines Administration. Any measure likely to aggravate in any way the transport costs of mining enterprises should only be taken with the express agreement of this Administration.

GENERAL SUMMARY AND PROGRAMME OF MINING INVESTMENT

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total	State Share	Private and semi official sector
1.Directorate of Mining & Geology								
1-Mining Division	(180	180	180	180	180	900	(900	-
2-Geological Division	(2,164	5,161	4,219	3,872	2,274	17,690	(17,690	-
3-Administrative Investment	(20	20	20	20	20	100	(100	-
2.B.R.P.M. (General Research)	5,400	5,400	5,352	5,384	5,384	26,920	26,920	-
3.Private sector (General Research)	2,215	3,015	1,995	1,480	980	9,685	-	9,685
4.Petroleum exploration								
1-Private sector	5,500	6,500	8,500	11,000	2,000	33,500	-	33,500
2-Conventions	6,800	13,800	15,500	12,000	10,000	58,100	17,120	40,980
3- B.R.P.M.	10,350	9,650	11,000	8,600	7,600	47,200	47,200	-
5.Specific Projects	20,130	52,810	32,545	77,146	71,750	254,381	190,536	63,845
6.O.C.P. (expansion)								
1-Khouribga and Youssoufia Centres	195,002	192,650	61,600	93,500	82,800	625,552	-	625,552
2-Benguerir	28,000	44,000	25,000	-	-	97,000	-	97,000
7.Mines worked in 1968	27,960	20,520	15,280	13,940	13.810	91,510	-	91,510
TOTAL	303,721	353,706	181,191	227,122	196,798	1,262,538	300,466	962,072
Proportion to be financed out of the State equipment budget	31,484	61,851	53,461	82,752	70,918		300,466	

Summary : Directorate of Mining and Geology

(in 1,000 DH)

Object of the investment planned	1968	1969	1970	1971	1972	TOTAL PLAN
1)-Craft-industry co-operatives	180	180	180	180	180	900
2)-Systematic research						
21 Aeromagnetism	600	1,300	460	395	245	3,000
22 Geophysical equipment	100	60	60	60	60	340
23 Geological maps) 24 Explanatory notes)	110	760	760	610	760	3,000
25 "Mining and Geology"	40	40	40	40	40	200
3)-Sedimentary basins						
31 Riff project (research section)	200	400	350	-	-	950
32 Deep water	100	600	1,000	1,000	300	3,000
33 Geothermics		100	150	150	-	400
34 Geochronology	120	120	120	120	120	600
4)-Mineral deposits						
41 Lead - zinc	540	719	165	821	31	2,276
42 Copper	134	204	204	204	204	950
43 Sulphur	-	350	-	-	-	350
44 Iron	-	-	10	-	-	10
45 Radioactive ore	-	54	54	54	108	270
46 Rare earths	-	10	10	-	-	20
47 Various metals	-	114	256	188	26	584
48 Potassium	140	250	500	150	300	1,340
49 Useful substances	80	80	80	80	80	400
5)-Administrative Investment	20	20	20	20	20	100
Total Directorate of Mining and Geology	2,364	5,361	4,419	4,072	2,474	18,690

GENERAL RESEARCH

1 - B.R.P.M.

(in 1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Lead- Zinc	1,975	1,975	1,975	1,975	1,975	9,875
Copper	3,050	3,050	3,050	3,050	3,050	15,250
Sulphur and others	375	375	327	359	359	1,795
TOTAL	5,400	5,400	5,352	5,384	5,384	26,920

2 - Private Sector

(in 1,000 DH)

	1968	1969	1970	1971	1972	TOTAL
Copper: Ailous and Tataout (ONA)	550	200	200	200	200	1,350
Copper: Bleida (Ait Otmane Mining Co.)	465	315	295	280	280	1,635
Copper: Various, by convention with B.R.P.M.	700	2,000	1,500	1,000	500	5,700
Other deposits (Zellidja)	500	500	-	-	-	1,000
TOTAL	2,215	3,015	1,995	1,480	980	9,685

PETROLEUM RESEARCH

1) Total investment

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total 1968-72
1 - Private groups						
Esso	3,500	4,500	6,500	9,000	-	23,500
S.C.P.	2,000	2,000	2,000	2,000	2,000	10,000
2 - Conventions						
Sebou	6,200	6,300	5,500	2,000	-	20,000
Doukkala	600	7,500	10,000	10,000	10,000	38,100
3 - B.R.P.M. Programme						
Guercif	1,900	4,600	4,600	5,500	3,700	20,300
Beni-Mellal	2,500	3,100	2,200	-	-	7,800
Tafilalet	-	100	1,600	1,900	1,900	5,500
Ouarzazate			100	1,100	700	1,900
Paleozoic area	250	250	100	100	1,300	2,000
Marine Seismic programme	-	1,600	2,400	-	-	4,000
Riff	5,700	-	-	-	-	5,700
TOTAL	22,650	29,950	35,000	31,600	19,600	138,800

2) Public Investment

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total
Sebou	620	630	550	200	-	2,000
Doukkala	120	3,000	4,000	4,000	4,000	15,120
Guercif	1,900	4,600	4,600	5,500	3,700	20,300
Beni-Mellal	2,500	3,100	2,200	-	-	7,800
Tafilalet		100	1,600	1,900	1,900	5,500
Ouarzazate	-	-	100	1,100	700	1,900
Paleozoic area	250	250	100	100	1,300	2,000
Marine seismic programme		1,600	2,400	-	-	4,000
Riff stratigraphic boring	5,700	-	-	-	-	5,700
TOTAL BY YEAR	11,090	13,280	15,550	12,800	11,600	64,320

Summary of specific projects (investment)

Unit : 1,000 DH

Project	Ore	Annual programme					Total Plan	B.R.P.M. Share
		1968	1969	1970	1971	1972		
Upper Moulouya	Lead	-	-	-	18,000	25,000	43,000	21,500
Riff mines	Iron	1,000	20,000	20,000	40,000	19,000	100,000	100,000
El Hammam (SAMINE)	Fluorine	1,000	2,000	8,810	-	-	11,810	5,905
Tazalaght	Copper	1,000	1,200	365	-	-	2,565	2,565
Imiter	Silver	1,360	3,900	770	206	-	6,236	6,236
Tiouine	Manganese	1,360	1,800	500	200	-	3,860	3,860
Bou Madine	Lead	2,110	1,510	-	-	-	3,620	3,620
Quansimi	Copper	-	-	-	1,150	1,700	2,850	2,850
Oumjerane	Copper	-	-	-	840	1,350	2,190	1,750
Alous	Copper	10,000	20,000	-	-	-	30,000	9,000
Anti-Atlas	Copper	-	-	-	15,000	15,000	30,000	15,000
Khemisset potassium	Potassium	2,300	2,400	2,100	1,750	9,700	18,250	18,250
Total		20,130	52,810	32,545	77,146	71,750	254,381	-
B.R.P.M. Share		12,630	37,810	28,140	60,496	51,460	-	190,536

O.C.P. INVESTMENT

(in 1,000 DH)

Centre	Nature of Operation	1968	1969	1970	1971	1972	TOTAL PLAN
Khouribga Centre	Extraction	8,700	4,200	-	-	-	12,900
	General and Central services	5,300	7,050	900	3,500	-	16,750
		14,000	11,250	900	3,500	-	29,650
Oued Zem Office	Extraction	45,950	54,250	2,000	26,500	22,000	150,700
Beni-Idir Office	Extraction	25,440	21,300	11,500	5,000	-	63.240
	Handling Transport	400	-	3,000	1,000	-	4,400
	Treatment	17,250	46,400	33,000	40,000	50,000	186,650
		43,090	67,700	47,500	46,000	50,000	254,290
Khouribga Office	Extraction	-	1,000	6,000	13,000	8,000	28,000
	Treatment	-	-	1,000	-	-	1,000
		-	1,000	7,000	13,000	8,000	29,000
Youssoufia Centre	Extraction	13,500	8,700	3,000	-	-	25,200
	Handling Transport	11,000	13,450	-	-	-	24,450
	Treatment	15,000	24,100	-	-	-	39,100
	General Services	1,000	2,700	1,000	-	-	4,700
		40,500	48,950	4,000	-	-	93,450
Casablanca Centre	Handling	26,500	9,500	-	-	-	36,000
Safi Centre	Handling	-	-	200	4,500	2,800	7,500
THREE YEAR PLAN COMPLETION CREDITS		24,962					24,962

PARTIAL TOTAL							
Benguerir	Extraction	18,000	31,000	10,000	-	-	59,000
	Development and Transport	2,000	2,000	3,300	-	-	7,300
	Handling						
	General and Central Services	3,000	4,000	1,000	-	-	8,000
	Treatment	5,000	7,000		-	-	22,700
Total Benguerir		28,000	44,000	25,000	-	-	97,000
GRAND TOTAL		223,002	236,650	86,600	93,500	82,800	722,552

SUMMARY OF INVESTMENT FOR EXISTING MINES

9

(in 1,000 DH)

Substance	1968	1969	1970	1971	1972	Total Plan
Iron	2,600	1,850	(a)	(a)	(a)	4,450
Lead - Zinc	11,200	11,300	8,800	8,800	8,300	48,400
Manganese	3,530	2,870	2,740	2,080	2,550	13,770
Copper	1,600	1,300	1,300	1,200	1,100	6,500
Cobalt	740	700	-	-	-	1,440
Antimony	750	850	600	750	750	3,700
Barite	3,940	860	1,120	460	460	6,840
Smectite	30	30	30	30	30	150
Rock salt	50	50	50	50	50	250
Pyrrhotine	3,520	710	640	570	570	6,010
Grand total	27,960	20,520	15,280	13,940	13,810	91,510

a) see specific projects

KINGDOM OF MOROCCO

PRIME MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING AND
THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 7

INDUSTRY

Industrial Policy

MARCH 1968

INDUSTRY

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INDUSTRY

I - SITUATION ON THE EVE OF THE FIVE YEAR PLAN AND EVALUATION OF THE THREE YEAR PLAN

In spite of an average growth rate slightly higher than in the remainder of the economy (around 4% compared with 2½%), although considerably lower than in the industrialised countries (6%), the position of industry (excluding mining and power, but including craft-industry production), in the gross national product is still low: 15% of the gross national product (G.N.P) in 1966 against an average of 35% in industrialised countries.

In view of the modest targets aimed at, the Three Year Plan showed an investment achievement index considerably higher than that of the 1960-1964 Plan, or 86%. While investments, however, amounted to 786 million DH (or 86% of estimates), this was mainly due to the considerable under-evaluation of the projects incorporated under the Three Year Plan; infra-structure had generally been overlooked, and buildings and working capital ignored. In terms of production capacity, therefore, the rate of achievement of the Three Year Plan is around 60 and 70%.

As far as projects instituted by the private sector are concerned, it is noteworthy that the rate of achievement is much higher in those branches where there was a potential demand and in respect of which accurate forecasts had been made thus enabling substantial profits to be anticipated. This is the case in the "food industry and textiles" branches.

Investment in the textiles branch, which benefits from strong customs protection, was considerably in excess of the targets aimed at. By contrast, certain public projects only started at the beginning of 1968.

The results achieved by private enterprise in the other branches are frequently less than 50%. There are many reasons for this:

- lack of entrepreneurs;
- overestimation of demand prospects (various industries and building materials);
- inadequate preliminary study of projects (ceramics and rubber conveyor belts).

The latter reason is to a large extent responsible for the low percentage of achievement in public projects where the necessary studies had not been sufficiently thorough. Another reason was the difficulty of finding financing. These two factors moreover are linked together in the sense that credit is more easily obtained when projects are well studied and their economic viability proven.

Emphasis will therefore be placed on this point under the present Five Year Plan.

Industrial development is hindered by the lack of capital and market outlets.

The lack of home markets is a result of the low average standard of living; the section of the population which disposes of an adequate income is frequently too small for it to be feasible to set up capital goods manufacturing units on a sufficiently large scale to ensure their competitiveness compared with foreign countries. Such industries, therefore, only operate, at least in the first phase, by means of high customs barriers enabling them to raise their prices.

The feasibility of setting up such units lies mainly in replacing imports by Moroccan products, the development of home market being generally not enough by itself; but as Morocco becomes gradually more industrialised the possibility of replacing imports in this way will become less and less and will become much more limited in the future than in the past. Industry will therefore have to export more. Unlike the home market, overseas markets are in fact on principle wide open.

The obstacles to the growth of export industries, however. are many and derive first from the inadequacy of the existing commercial networks and secondly from present prices being too high.

Finally, on the overall level, industrialisation is still blocked by the lack of available capital, both Moroccan (through inadequate savings) and overseas (by means of loans). Added to these two factors is the weak structure of company management.

II - POLICY TRENDS

The programme of action will be directed along several major lines of industrial policy. It will result in a number of concrete projects being selected on the basis of their importance to the Nation. The programme will be supported by a series of legislative measures and regulations intended to attract investors, promote financing and the profitability of investment and encourage industrial growth in accordance with the policies adopted.

Before describing this programme, however, some information concerning the methodology adopted will be given.

1. Selection of projects

With the help of an overall general outline, projections were first made of the economy in 1973 to determine what targets could be achieved by the principal branches of the economy, particularly by household consumption, investment and overseas trade. This first projection enabled the needs of the main production sectors to be calculated.

A study by sector was also carried out. Industry was broken down into as many branches as possible in order to see what industrial sectors, assured of certain markets, should be set up or expanded. This work took account of existing production capacities and the volume of imports.

No attempt was made to break down growth in all the various branches in the form of projects. Apart from the fact that this would have needed a considerable amount of work - which is not usually done at the preparation stage of a Plan - this breakdown would be of little overall interest and would certainly be purely theoretical as realisation of the majority of projects is outside the direct responsibility of the Public Authorities.

Study first of the major projects and secondly the minor projects as a group enabled the bases of an industrial growth programme to be worked out.

As much data as possible in respect of both the investment phase (cost, nature, origin) and of the operating phase (estimated trading account) were assembled for each of the existing projects.

These were then classified in relation to their importance for the community as a whole, according to a method, the main principles of which are as follows:

The economic viability of the investment is calculated on a national level; this is done by taking into account the life-span of the project (plant, mine), only those projects being pursued where the cumulative benefit over the life-span of the project is in excess of the cost of the investment.

Projects are classified in relation to the valorisation of inputs (maximum increase in the market value of products by incorporating the minimum of scarce production factors: capital goods, intermediate consumption, senior staff). By contrast, unskilled labour is not considered a scarce factor of production this category of labour, in view of its plentiful supply, does n constitute a real cost for the community as a whole. Social service charges are considered as a part of wages.

Direct and indirect taxation is also eliminated from the operational expenditure. Neither is this class of expenditure a real cost to the community. The fiscal system - a quite arbitrar figure - should not make certain projects uneconomic which would be uneconomic on a national level. Its incidence is eliminated.

Furthermore revenue and expenditure at different periods are made comparable by bringing them up to date. In this way the rate for each project can be determined which equates the sum of the actualised profits to the actualised investment: this is the economic profitability index.

Projects are classified in decreasing order of profitability index.

All other things being equal, this criterion presupposes that those projects which utilise most unskilled labour are given priority or more specifically those which distribute the most wages to unskilled labour.

Furthermore, the foreign exchange earnings resulting from the realisation of each project were calculated and compared with the foreign exchange investment needed for the operation.

For this purpose all expenditure was first broken down (investment and operation) both in Moroccan currency and foreig exchange.

Then the foreign exchange share in local expenditure was determined right through the production process. In respect of cement manufactured locally, for example, the foreign exchange share is a function of the amortisation of investments, the employment of foreign personnel and the use of certain raw materials (fuel, coal.....).

Receipts were evaluated in foreign currencies, either by reference to the FOB price in respect of export products or to the C.A.F. price in respect of products replacing imported products.

It was thus possible to determine the following:

- the receipts in foreign exchange Rf
- current expenditure in foreign exchange Ef (direct and indirect)
- foreign exchange investments Fi (direct and indirect)

The ratio $\frac{Ip}{Ii} = \frac{Rf - Ef}{Fi}$ indicates the amount of foreign exchange earnings.

Where: Ip = industrial product and Ii = industrial investm

2. Industrial policy

The aim is to increase the country's output as much as possible by making the most effective use of the available resources of capital and senior grades. This also necessitates the most effective utilisation being made of local products and the development of activities for which the country offers particular advantages compared with the rest of the world.

Two criteria, not obviously compatible at first sight, need to be reconciled: first the importance to the nation and then the normal profitability of the capital invested (fundamental for the private entrepreneur who will only take his decision on the basis of this criterion).

The criterion of importance for the economy should be understood in the wider sense and should take into account several factors such as regional planning (promoting a harmonious development of all the regions of the national territory), the employment policy (all other things being equal, promoting those projects which create the maximum employment).....

Should the second criterion (profitability of the investment in the normal sense) be consistent with the first (importance to the nation), the State has two remedies, either to ensure profitability for the project's private entrepreneur by price manipulation, by tariff protection or by subsidies or, in certain cases, to assume itself direct responsibility for the project.

The result of the application of the above principles should be the establishment or expansion of priority industrial units in the light industry sectors, geared either towards the export market or the home market, and in the medium industry sectors when this results in utilisation of the country's major resources.

By contrast, the setting up of heavy industries or, by contrast, of assembly industries, would only be envisaged if a detailed economic study proved a sufficient contribution to the national revenue.

2.1. Promotion of light industry

Close to end consumption, markets are more easily found by the light industries than the heavy industries in an underdeveloped country such as Morocco. The former need less capital investment than heavy industry; they are therefore less costly to set up and have less effect on the balance of payments. Light industry generally employs more labour, which can be more easily trained from the craft-industries with which it is often closely connected (textile and leather industries for example). Because of Morocco's abundant and relatively cheap labour resources, it is economically better suited for this type of industry than fully industrialised countries where labour is more scarce.

Establishing these light industries, however, is hindered b the lack of markets; they should therefore direct their efforts more than in the past towards exporting.

The possibilities of substituting home products for those imports which have played a considerable role in the development of certain branches of industry will become less and less. The home textile sector for example will be in a position to meet internal needs in 1969. In fact it seems impossible to go beyond a certain limit; this limit is a function of the home market which itself has a slow rate of growth as a result of the general level of business and features peculiar to the country(productio series inadequate for manufacture, relative disadvantage compared with other countries for certain types of activity)

The growth prospects which exist on the home market will certainly be exploited; this will mainly involve the industrial expansion of small or medium-sized industries, either based on the exploitation of Moroccan products, or by carrying out major improvements in Morocco to raw materials.

This is the case where small and medium sized units are set up or expanded, first in some building materials branches (cement) or certain food industry branches (processing oil-seeds) and secondly in mechanical engineering (chemical or other branches, for example, wire-mills, sheet-metal works, boiler works, electric motors, detergents, insecticides).

Market research will be directed primarily towards exports.

The hesitant growth of our exports, however, shows that winning international markets at a time where competition is greater than ever is not easy. Efforts therefore will be direct to:making prices competitive and quality being equal to that of the products offered on international markets,

- setting up commercial circuits.

The need for competitive prices demands that up-to-date techniques be applied particularly in the food industries.

To this effect encouragement will be given to the replacement and merging of out-of-date units into larger and more mod units in certain sectors (fish, meat. fruit and vegetable cann

Market prospection will be systematically carried out by means of market studies of all food products (canned fish, fru and earlies, canned vegetables and meat, alcoholic and sparkli drinks) and of certain types of fertiliser.

A co-ordinated and imaginative effort will be needed to select a number of projects of this type, as this frequently involves small or medium-scale schemes and a dynamic marketing policy will have to be worked out for overseas market prospection.

This policy will be based on the granting of credit facil ies, taxation benefits and exemption or reduction of customs duties.

2.2. Agricultural industries

a) Because of its educational impact on the agricultural world and its promotion of industrial cultivations in order to raise the rural sector from a subsistance economy, a food indus such as the sugar refineries, geared to the home market, will also be encouraged.

b) The purpose of this is to ensure industrial growth proceeding hand-in-hand with agricultural growth. This co-ordination will ensure a self-sustained industrial growth, particularly in the downstream and upstream agricultural industries.

c) Furthermore, government policy (priority development of agriculture) clearly indicates the types of projects to be encouraged by the public authorities:

1 - Food industries;

2 - Agricultural allied industries (chemical fertilisers and insecticides, agricultural machinery);

2.3. Promotion of medium-sized industries which make effective use of national resources

These industries, though less important per dirham invest than the above mentioned industries, nonetheless have a not inconsiderable influence on the regions concerned and may becom the centre of poles of development. Furthermore, in absolute figures, the revenue created is very considerable.

2.4. Heavy industry and assembly industries

Heavy industry projects and assembly industries should be investigated most carefully.

Heavy industry projects are frequently well-known and technical studies have been carried out; taking into account their great cost, it is extremely important that detailed economic studies be undertaken in order to measure the impact of these projects on the national economy. Frequently, indeed, a decision to proceed with one of these large projects will lead to the abandoning of several other medium-scale projects which, although less spectacular, can contribute very much more to economic growth. The amount of investment needed also obliges the State to assume full responsibility for it which places a very heavy burden on the public budget.

Development of heavy industry in a country such as Morocco is confronted with many difficulties. Indeed, in order to be profitable, such industry frequently requires the setting up of large scale production units exceeding the absorption capacity of a market of the size of the Morocco's which will remain small for a considerable time to come. Such industry however can be of the highest importance particularly if ultra-modern industries are concerned (chemicals, plastic industries and electronics), assured in the long-term of a sustained and expanding demand. These then constitute the mainstays of the whole of the economy.

In view of the resources in Morocco's sub soil of phosphate and potassium the chemical industry, particularly the chemical fertiliser sector, will be given particular encouragement.

By contrast the assembly industries, while having the advantage of needing low investment, do not always present an obvious economic interest.

These small or medium sized industries aim at transforming imported semis for the home market. The importance of such industries is particularly justified by the employment created.

To the extent that basis investment is very low and the difference in price compared with international prices is slight, such industries appear to be justified (such as assembly of radio or television sets).

As soon as investment becomes higher and the price variation greater, these industries have only a minor importance for the national economy. In any event it seems absolutely essential, in view of the limitation of the market, to standardise production as far as possible and only to produce very small quantities of series goods of the same type in order to reduce the cost price. It is only after very detailed studies particularly of the amount of investment, the national valorisation and production prices, that public authorities should grant the benefits to enable such units to be set up.

These industries should be export orientated to provide them with access to a wider market and subsequently to allow for progress from the assembly stage to production stage.

To summarise, in view of the geographical situation and the economic characteristics of the country (abundant labour and lack of capital), of the universal tendency for a liberalisation of overseas trade, the most viable projects are those which, all other things being equal, enable products to be manufactured with the highest value, at equal weights, and enable the highest wages to be paid, at equal cost.

This conclusion moreover is evident from the detailed comparitive study of the various projects, which shows that heavy industry is less profitable for the community than light industry, chemicals or plastic.

III - INDUSTRIAL GROWTH PROSPECTS OVER THE FIVE YEAR PERIOD

The rate of growth of the industrial incremental value (including craft-industries) should rise gradually from approximately 4% at the beginning of the period to approximately 5.5% at the end of the Plan, maintaining an average during the Plan of 4.7% a year which is a considerable achievement compared with past tendencies (2 to 3%). For industry alone this achievement would appear to be even more considerable (6% a year on average, against 4%).

Part of this growth will be due to the more effective utilisation of production capacities by existing units (fuller utilisation and improved productivity). Part again will be due to the setting up of new units, either establishing new enterprises or expanding existing ones. A list of projects has been drawn up for the latter. This list is not exhaustive and further projects may be added to it during the Plan and others already on the list may be eliminated if other projects appear more profitable.

I - Investment prospects

The total new investment envisaged in public or private projects is approximately 1,355 million DH for the whole durati of the Plan, or an annual average of approximately 270 million D

Included in this total of 1,355 million DH are:

- projects to be carried out by the State alone totaling 140 million DH;
- two projects to be realised by State-private sector partnershi accounting for approximately 160 million DH;
- another project to be carried out by a public authority requiring 385 million DH.
- projects for which the private sector will be responsible, totalling approximately 670 million DH, or 55% of the overall total.

Below is a list of the projects broken down into State, semi State and private projects. It will be noted that the number of projects to be carried out by the State or by a private sector State partnership is very small. The State only intervenes where the private sector has inadequate facilities.

TABLE 2 : State or semi-State projects

PROJECT	Investment (1,000,000 DH)	Internal profitability index	Foreign exchange saving
1 - State			
- Tadla sugar refinery	100	- 1.8	13
- AIA (metal transformation)	40	under study	
2 - Semi-State			
- C.O.T.E.F.	100	11%	29%
- Doukkalas sugar refinery	60	- 2	13%
TOTAL	300		

TABLE 2a

Programme of public and semi-official investment to the charge of the State

(in 1,000 DH)

PROJECT	1968	1969	1970	1971	1972	1968 1972
1 - State						
- Tadla sugar factory	30,000	30,000	40,000	-	-	100,000
- AIA	-	10,000	20,000	10,000	-	40,000
2 - Semi-State						
- COTEF	10,000	20,000	20,000	-	-	50,000
- Doukkala sugar factory	5,000	10,000	15,000	-	-	30,000
3 - Equipment grant	25,000	14,000	10,000	11,000	10,000	70,000
4 - Economic studies	330					330
TOTAL	70,330	84,000	105,000	21,000	10,000	290,330

In addition, a study into setting up a cold storage chain covering the whole country will be undertaken. This chain will start operating during the 1968-1972 five year period.

However, in addition to the investment relative to the projects to be carried out by the State are the equipment grants, for which a figure of 70 million DH has been scheduled for the five year period.

TABLE 3 Private projects

Project	Investment (1,000,000 DH)	Internal profitability index	Foreign exchang saving
Pottery	13	26	33
Plastics	28	25	50
Cellulose	102	21	40
Chemical plant	385	17	41
Alfa treatment	185	15	42
Paper and carton	45	15	32
Cement works	32	14	52
Tetouan textiles	30	10	20
Moulouya sugar refinery	125	2	15
Fruit juice	16	-	-
Minor projects	- 144	-	-
TOTAL	- 1 110	-	-

TABLE 4 General classification of projects

Project	Investment 1,000,000 DH	Internal Economic profitability index	Nature of Project	Foreign Exchange Saving %
Pottery	13	26%	Private	33%
Plastics	28	25%	Private	50%
Cellulose Maroc	102	21%	Private	40%
Chemical plant	385	17%	Private	41%
Alfa treatment	185	15%	Private	42%
Paper and carton	45	15%	Private	32%
Cement works	32	14%	Private	52%
COTEF	111	11%	Semi-official	29%
Tetouan textiles	30	10%	Private	20.5%
Moulouya sugar refinery	125	2%	Private	15%
Tadla II sugar refinery	100	-1.8%	Public	13%
Doukkalas sugar refinery	60	- 2%	Semi-official	13%
Fruit juice	16	Not classified (being studied)		
AIA	40			
Minor projects	- 144			
Cold storage chain	-			

The latter table shows the most important projects classified in decreasing order of profitability. The classification criterion was the rate of actualisation which equates the economic benefit actualised to the investment actualised.

Comparative study of these projects (particularly the minor projects) shows that on a national level the most profitable projects are those coming under light industry.

Next come certain major projects for processing agricultura products (cellulose paste and alfa) and the Moroccan raw material based fertiliser industry.

The profitability of the heavy industry projects varies considerably, depending on the project in question.

In addition to these project investments are the investmen for the renewal and increased productivity of existing enterprises amounting to some 150 million dirhams a year.

2 - Employment

The increased employment deriving from the new projects is approximately 12,000. Jobs created upstream in the agricultural sector amount to some 10,000 over 6 months or 5,000 full-time.

An increase in the activity of existing enterprises will again create some 10,000 jobs.

3 - Production

The growth prospects of the various industries are shown in the table below.

TABLE 5 Increase in the incremental value by branch of industry (percentual annual average growth rate)

	Five Year Plan		
	1965/1958	1968/1964	1973/196
Agricultural and food industries	3.5	3.9	6.8
Building materials	4.7	2.2	5.4
Motor cars, lorries	5.5	3.2	6.8
Leather, textiles (excluding textile craft-industries)	6.0	3.9	3.0
Chemicals	4.4	4.8	4.1
Paper and carton	4.4	1.1	3.9
Others	2.9	1.0	2.4
Overall (excluding craf-industry textiles)		3.3	5.1

IV - THE MEANS

The industrial policy is backed up by a series of measures either direct or indirect, aimed at improving general production conditions and encouraging entrepreneurs to invest in those branches of industry which are of national importance.

The function of the State is threefold in terms of organising production conditions:

i) The state assures general production conditions such as to promote the maximum free movement of competition. The objective of the laws and regulations to be implemented therefor will be to simplify and clarify the regulations governing the movement of the market.

ii) The State will take a number of measures either in legislative or regulation form in order to encourage economic agents to aid economic growth along the lines outlined by the Plan.

iii) Finally the State will intervene directly in cases wher the private sector is inadequate such as when the investment needed is too great or when a sector, in spite of its importance to the country, attracts for various reasons insufficient private entrepreneurs.

Under these three aspects rather than instituting new measures, the Five Year Plan will improve those means of action already existing in the sense of greater efficiency.

These means include the following:

- a more exhaustive and more selective study of the public and semi-official projects;
- setting up an effective advisory service for investors in order to ensure a climate of confidence;
- improving the incentivation policy;
- reorganising direct State aid to ensure greater selectivity and efficiency;
- setting up a more-effective marketing policy;
- improving productivity;
- an occupational training policy.

1 - More selective and thorough study of projects

The list of projects incorporated under the Five Year Plan is partly indicative. Certain projects, in fact, have been definitely decided upon but others are merely proposed. During the period new investment possibilities will doubtless present themselves leading to the replacement of certain projects, the profitability of which is inadequate for the economy, by new and more viable projects.

Thus the study of projects commenced during the preparation stages of the Five Year Plan will be continued: prospection, analysis and selection will be the three main aspects of this work in the years to come.

i) Prospection because by means of studying home and particularly overseas markets, this will first reveal new industrial growth possibilities and secondly provide an inventory of the intentions of potential investors.

ii) Analysis because, once the projects are known, this involves evaluation of the benefits accruing to the economy according to the methodology devised during the preparation of the Plan.

iii) Selection finally because here the projects are sorted out with only the most economic ones being retained.

For this purpose a "permanent programme planning unit" will be set up within the Ministry of Industry.

2 - Advisory Service for investors

This policy will aim at:

- improving the services offered to potential investors and facilitating their task by simplifying the formalities to be fulfilled and by obtaining promptly for them the information they require;

- more generally speaking, creating a climate of confidence.

A new body will be set up for this purpose: "Investors' Reception and Advisory Centre". Its task will be to keep up-to-date and publish all information on:

- taxation regulations
- work regulations
- wage levels
- prices and sources of supply
- comparative profitabilities of the various sectors
- market outlets
- generally speaking, all the technical, economic and financial information in respect of the Moroccan market and its growth prospects.

Experience has indeed shown that private investors are quit prepared to invest in Morocco wherever profits are assured and indicated.

This Centre will also assist investors in approaching the various government administrative and technical departments, contact with which will be mainly through the Centre.

The role of this Centre is not intended to be purely static: given the necessary financial means it will be responsible for seeking out potential Moroccan or overseas investors and as such will in fact become an effective sales organisation for market prospection.

3 - Fiscal incentivation measures

3.1. Benefits of the Code

Whatever the source of capital (private funds or from banks and whatever the entrepreneur's nationality, the latter can clai the following benefits under the Investment Code:

a) Equipment grants

Approved entreprises can benefit from a State "equipment grant". This only covers industrial building and equipment directly used for this building.

The maximum rates are as follows:

- 20% in the province of Tangiers
- 0% in the Casablanca-Mohammedia region
- 15% in the rest of Morocco.

b) Customs

Materials, tools and capital goods may be exempted from customs duty provided they are new and Moroccan industry is unable to supply them at competitive prices.

c) Registration

Registration fees for setting up companies or for capital increases are reduced to 0.5% and the tax on contributions in kind (buildings and business) will be abolished.

d) Accelerated amortisation

The amortisation period for capital goods can be reduced from 10 to 5 years.

f) Tax-Free Reserve Fund

A reserve fund for the purchase of new equipment may be set up free of tax on trading profits (although this cannot be allowed to accumulate with previous benefits). This does not, however, cancel out the right to account for normal amortisation (10 years) This shall not be more than either 40% of the amount of investment or 50% of the net profit.

g) Transfer of Capital guaranteed

Any overseas non-resident investor whose project is approved will automatically be guaranteed the right to transfer the proceeds from the total or partial liquidation of his investment. No time limit is imposed. This right is transferable among non-residents if the investment is financed in convertible foreign exchange and among persons in the same monetary zone if not.

h) Transfer of investment income

The policy on transferring this income abroad has never been questioned and it will be continued.

i) Fiscal guarantee

This will apply for ten years and, whatever the nature of the tax, will apply to:

- the rate, the method of assessment and the modality of collection. It shall be cumulative with all the above provisions.

3.2. Improvement of the incentivation machinery

a) The Investors' Reception and Advisory Centre will be responsible specifically for undertaking any profitability studies it may consider necessary and should propose any modification or improvement concerning the benefits, particularly those of a fiscal nature, offered to investors.

b) Customs protection of new industries

Certain industries benefit at present from extremely heavy customs protection. While this may be justified when an industry is being established, it cannot be maintained indefinitely without very serious consequences as it encourages slackness and deprives the enterprise of the necessary stimulus of competition.

It is therefore essential gradually to decrease the customs barriers protecting industries which have already been established for some time. Measures to this effect will be taken in accordance with the trend in the growth of world trade.

c) Other customs duty measures

A study will be made of customs protective barriers to assess the efficacy of the draw-back and temporary import systems and to determine whether current regulations need liberalising in order to accelerate industrial growth.

The possibility of extending exemption from customs duty to second hand equipment will also be examined.

d) Guarantee of overseas investment

Overseas investment in Morocco is guaranteed. To this effect Morocco has:

- concluded bilateral agreements with the U.S.A. (in 1960, modified in October 1963);
- concluded bilateral agreements with the Federal Republic of Germany (in August 1961);
- concluded bilateral agreements with the Belgo-Luxembourg Union (in April 1966);
- ratified the convention on Adjustment of Differences in respect of investments, drawn up by the B.I.R.D. (in March 1965).

Morocco offers investors a number of fiscal and regulation advantages which ensure that an immediate and sizeable investment return can be anticipated.

3.3 Export incentivation

Export industries in Morocco appear at present to be underprivileged. While industries geared to the home market benefit in the main from a customs protective barrier which is often very high, export industries have to meet international competition unaided. This is an inconsistency which may well jeopardise the full economic growth of the country, particularly as the export industries bring not only an inflow of foreign exchange, a much higher national valorsiation than that obtained from certain industries geared to the home market where the markets only exist because of a very high protection barrier.

Export industries already benefit from refund of the turnover tax (8.7%). It should also be pointed out that in accordance with the proposal of the European Economic Community, the Moroccan craft-industry products enjoy the same rights as the E.E.C. member-States.

In order to eliminate this inconsistency the taxation system will be reviewed. This study will determine the rate of exemption to be granted to export industries in order to place them on an equal footing with industries geared solely to the home market.

4 - Improvement of productivity and working conditions

In conjunction with the measures to promote the setting up of new industries, an effort will be made to improve productivity of all Morocco's industry along several lines:

- standardisation of products;
- legislation on industrial ownership;
- status of research
- drawing up a Food Code

4.1. Standardisation of products

In order to reduce costs and increase the quality of products, an effort will be made to increase the quantities of production series with specifications, dimensions and quality of the products being "standardised". By making supplies and quality control easier and by reducing waste, the measures are in the interests both of the vendor and the purchaser.

Regulations laying down the modalities of these measures, drawn up by the Ministry of Industry, will be found in appendix to this section.

4.2. Legislation on industrial ownership

The laws on industrial ownership will be improved by a series of regulations incorporating:

- a law for the protection of industrial ownership in respect of industrial patents and the corresponding decree;

- a law for the protection of industrial ownership in respect of trade-marks and descriptions;

- a law for the standardisation of the system of industrial ownership in Morocco.

These regulations will be found in appendix hereto.

4.3. Status of Research

Research in Morocco suffers from a lack of scientific and technical personnel. This is exaggerated by the departure of the majority of the foreigners who worked in Morocco and who have not been able to be replaced by Moroccans. The result is that the State research laboratories, although well equipped, cannot fulfil the tasks for which they should be responsible.

The present uncertainty in the situation of research staff is largely responsible for this situation. This is why a status has been established for scientific and technical research staff, the modalities of which will be found in appendix hereto.

4.4 Drawing up a Food Code

This Code which in fact exists already (Department for the Repression of Fraud of the Ministry of Agriculture) will have the specific task of controlling the hygiene of food products. It will also provide a positive and important factor in exporting Moroccan food products (particularly tinned goods) overseas.

For this purpose the draft decree "concerning the setting up of an inter-Ministerial Committee for food hygiene control and the repression of fraud" prepared in 1963 has been adopted under the present Plan.

5 - Occupational training policy

Occupational training, still too frequently inadequate and ill-adapted to the needs of the economy, will be improved by:

- better co-ordination between the Ministry of Public Education and the Ministry of Work to avoid overlapping of work;

- setting up organisational structures for occupational training at company level (mixed committees by sector of activity, occupational training funds....).

- setting up a technical college specialising in the food industries or incorporating a specialised section in an existing college.

a) The occupational training proved by the technical colleges is necessarily general and all-embracing. It is therefore essential to add to this programme and make it more specialised by periods of training in enterprises, according to the needs of the economy.

b) No college exists which specialises in the food industries in view of the anticipated growth of these industries and the priority nature of agriculture this is a deficiency which needs to be remedied.

A section therefore will be added to one of the existing establishments: (College, Meknes Agricultural College), for the training of senior technicians.

KINGDOM OF MOROCCO

PRIME MINISTER

SECRETARIAT OF STATE FOR PLANNING AND THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 7

INDUSTRY

INDUSTRIAL PROJECTS

Part one

MARCH 1968

INDUSTRY

THE INDUSTRIAL PROJECTS

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THE PROJECTS

SECTOR DEVELOPMENT

The field of industry comprises a number of sectors. The following pages are devoted to describing these sectors one after the other. The situation is reviewed for each sector in 1968 and in 1973 together with the growth of internal and overseas requirements and the internal or imported resources and the production capacity, the utilisation rates of the existing capacity and the index of imports in relation to needs.

Where growth in production necessitates new installations these are also described, together with the relative investment, and the fully operational trading accounts and extent of employment created are also shown.

2-1 SUGAR WORKS AND REFINERIES

Market : sugar consumption in Morocco between 1960 and 1966, was as follows:

Unit : Ton

YEAR	LOAF SUGAR	WHITE SUGAR (refined or raw)	CUT SUGAR	TOTAL
1960	300,057	50,143	8,656	358,856
1962	307,738	54,759	9,050	371,547
1964	293,016	45,859	9,877	348,752
1965	291,703	40,996	9,430	342,129
1966	301,800	39,500	9,700	351,000

There was a drop in consumption between 1964 and 1965, mainly concerning the demand for white sugar.

The home demand for cut sugar remained stable between 1964 and 1966.

The year 1966 produced an appreciable recovery (increase of 2.6% compared with 1965) and the figures for 1967 seem to consolidate this recovery.

The figures already available for 1968 show an overall home demand of 372,000 tons to which may be added export estimates of 5,000 tons, thus showing total needs at 377,000 tons. The annual rate of growth adopted is 3%. Total needs would amount to 437,000 tons in 1973.

The table below shows details over the complete duration of the Plan (1968-1973) of needs, production capacities, products and imports needed.

Unit : ton of 93% unrefined sugar

	Year 1968	Year 1973	Increase	Annual rate of increase
Home needs	372,000	432,000	+ 60,000	3%
Estimated exports	5,000	5,000	-	-
Total needs	377,000	437,000	+ 60,000	-
Production capacity	174,000	276,000	+102,000	
Annual production	110,000	244,000	+134,000	
Rate of utilisation of production capacity	63%	88%	+ 25%	
Imports needed	267,000	193,000	- 74,000t	
Percentage of imports compared with needs	71%	44%	- 27%	

PRODUCTION TARGETS

The capacity of the sugar factories at the beginning of 1968 will be 174,000 tons of 93% unrefined sugar, broken down as follows:

SUNAB
SUTA
MECHRA BEL KSIRI
SIDI ALLAL TAZI

TOTAL.........

In view of needs and the production possibilities of the sugar-beet factories, the Plan's target is to raise this capacity to 273,000 tons during the period 1968-1973 by setting up the following sugar factories:

Location	Production capacity of 93% unrefined sugar	Investment	Start of operation	Financing
Tadla II sugar works	47,000 T.	100,000,000DH	May 1969	State
Doukkalas sugar works (Sidi Bennours)	29,000 T.	60,000,000DH	April 1969	Semi-State
Moulouya Sugar works	23,000 T.	125,000,000DH (including refinery)	April 1971	Private
TOTAL	99,000 T.	285,900,000DH	-	-

State investment will amount to a total of 130,000,000 DH, the balance of 155,000,000 being provided by private investment.

Imports will drop from 267,000 tons to 193,000 tons in 1973, or a reduction of 74,000 tons; this well suits the objective of the Plan which is to reduce imports as much as possible. Furthermore the setting up of these sugar works will create some 1,500 new jobs without taking into account the indirect employment created in agriculture.

Doukkalas sugar works

Location: Sidi-Bennour
Description : Setting up a sugar works with an annual production capacity of 29,000 tons of 93% unrefined sugar.

Processing capacity: 2,000 tons of sugar beet a day. The production capacity is based on a 90 day operating regime.

Investment:

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign Exchange expenditure	Total
Land	400	-	400
Infra-structure - Buildings staff accommodation	11,018	2,430	13,448
Initial expenditure	1,406	1,406	2,812
Manufacturing equipment	8,600	19,700	28,300
Transport equipment	285	215	500
Maintenance equipment	600	600	1,200
Sundry	778	422	1,200
Taxes on equipment	3,000	-	3,000
Assembly	4,800	1,200	6,000
Working capital	2,600	540	3,140
TOTAL	33,487	26,513	60,000

Total investment : 60,000,000 DH
Foreign exchange investment: 26,513,000 DH

Annual Programme

Unit : 1,000 DH

	1968	1969	1970	TOTAL
Share capital	6,000	14,000		20,000
Equipment grant	-	4,000	4,000	8,000
Suppliers' credit	-	4,250	4,250	8,500
Long-term loan	-	11,750	11,750	23,500
TOTAL	6,000	34,000	20,000	60,000

Operation

The breakdown of expenditure and receipts is as follows:

Unit : 1,000 DH

	Receipts	Expenses
28,000 tons 93% unrefined sugar	31,000	
14,350 tons dried pulp	1,435	
7,180 tons molasses	574	
Intermediate consumption		18,886
Wages and salaries		
Senior staff and employees		740
Permanent staff		960
Seasonal staff		504
Financial charges, amortisation and taxes		6,273
Balance		5,646
TOTAL	33,009	33,009

Jobs created: by setting up this sugar-works

administrative senior grades : 10
technical grades : 6
permanent staff : 200
seasonal staff : 300

516

Total wages (including social service charges):
2,204,000 DH

Moulouya Sugar-works

Location and description

BERKANE Setting up a sugar works and refinery in the province of Oujda, comprising:

- one combined sugar beet and sugar cane factory with a production, including sowings, of

100,000 tons of sugar beet	:	14,000 tons unrefined sugar
90,000 tons of sugar cane	:	9,000 tons " "
Total	:	23,000 tons " "

- one sugar works and refinery for production of 2 kgs centrifuged sugar loaves.

Production capacity: 200 tons a day of sugar loaf. This refinery will process direct the unrefined sugar produced by the above mentioned sugar works.

The loaf production capacity will be planned to enable the factory to process as well the output from another sugar works to be built at Selouan in 1973.

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Infra-structure	18,000	5,000	23,000
Initial expenditure	3,000	3,000	6,000
Industrial investment			
Sugar refinery and works at Berkane			
Sugar beet works	18,000	30,000	48,000
Addition for cane processing	5,000	10,000	15,000
Refinery and loaf works	9,000	16,000	25,000
Part total	53,000	64,000	117,000
Working capital	7,000	1,000	8,000
Grand total	60,000	65,000	125,000

Operation : The figures shown below relate to the project prio to the building of the Selouane sugar works.

The breakdown of expenditure and receipts is as follows:

Unit : 1,000 DH

	Receipts	Expenses
21,000 tons loaf sugar	38,640	
7,770 tons dried pulp	930	
6,300 tons molasses	504	
Intermediate consumption		22,190
Wages and salaries of senior staff and employees		520
Permanent staff		1,430
Seasonal staff		170
Financial charges, amortisation and taxes		12,610
Balance		3,154
Grand total	40,074	40,074

Jobs created: By building this sugar works and refinery:

Administrative grades	10
Technical grades	3
Permanent staff	290
Seasonal staff	100
Total	403

Total wages : 1,060,000 DH

(including social service charges)

Tadla II Sugar works

Location : region of Tadla
Description:

Building a sugar factory with a processing capacity of 3,600 tons of sugar beet a day, providing an annual production capacity (90 days) of 47,000 tons of unrefined sugar.

Investment :

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Land	300	-	30
Infra-structure, Buildings (existing staff accommodation)	11,300	2,600	13,90
Initial expenditure	400	400	80
Various equipment + assembly	30,000	50,000	80,00
Working capital and contingency fund	5,000		5,0
Total	47,000	53,000	100,0

Total investment : 100,000,000 DH
Foreign exchange investment: 53,600,000 DH

Operation :

	Receipts	Expenses
47,000 tons unrefined sugar	51,000	
21,000 tons dried pulp	2,100	
11,000 tons molasses	880	
Intermediate consumption		32,1
Wages and salaries, senior staff and employees		68
Permanent Staff		1,61
Seasonal staff		28
Financial charges, amortisation and taxes		9,16
Balance		10,12
Total	53,980	53,960

Jobs created :

Administrative grades	12
Technical grades	5
Permanent staff	350
Seasonal staff	233
Total	600

Total wages (including social service charges)

SUB-SECTOR 2-4 CHOCOLATE INDUSTRY

CHARACTERISTICS OF THIS SECTOR

Unit : ton

	Year 1968	Year 1973	Increase	Annual ra of increa
Internal needs	1,100(1)	1,215	115	2%
Estimated exports	50	100	50	
Total needs	1,150	1,315	165	
Production capacity	2,000(2)	2,000	0	
Annual production	1,000	1,215	+ 215	
Rate of utilisation of production capacity	50%	60%	+ 10%	
Imports needed	150	100	- 50	
Percentage of imports compared with needs	13%	8%	- 5%	

The annual growth rate is low because of the decrease in the foreign population of Morocco; this reduction is offset little by the Moroccan population's consumption.

Production capacity is consequently largely in excess of actual production (6% in 1973).

It is therefore essential to make considerable efforts to seek out markets and lower production costs to make products competitive in comparison with foreign products.

1)	Solid chocolate	550 tons
	Powdered chocolate	150 tons
	Chocolate sweets	400 tons
2)	Solid chocolate	1,100 tons
	Powdered chocolate	300 tons
	Chocolate sweets	600 tons

SUB-SECTION 2-4 CONFECTIONERY

CHARACTERISTICS OF THE SECTOR

Unit : ton

	Year 1968	Year 1973	Increase	Annual rate of increase
Internal needs	3,750	4,550	800	4%
Estimated exports	400	500	100	-
Total needs	4,150	5,050	900	4%
Production capacity	7,500	7,500	0	
Annual production	4,050	5,000	950	
Rate of utilisation of production capacity	54%	66%	+ 12%	-
Imports needed	100	50	- 50	
Percentage of imports compared with needs	2.4%	1%	-1.4%	

In spite of the estimated growth rate of 4%, production capacity is considerably in excess of production (66% in 1973).

Considerable efforts should therefore be made in this sector to seek overseas markets to ensure effective operation of this sector.

SUB-SECTOR 2-5 YEAST WORKS

CHARACTERISTICS OF THE SECTOR

Unit : ton

	Year 1968	Year 1973	Increase	Annual rate of increase
Internal needs	8,230	12,090	3,860	8%
Estimated exports	0	0		
Total needs	8,230	12,090	-	
Production capacity	8,000	13,000	5,000	
Annual production	7,530	12,090	4,560	
Rate of utilisation of production capacity	94%	93%		
Imports needed	700	0	- 700	
Percentage of imports compared with needs	8.5%	0		

The annual growth rate was estimated at 8% on the basis of the growth of demand between 1960 and 1965.

Consequently an increase in production capacity of 5,000 tons a year was estimated in order to meet demand. This increase is obtained by extending one of the existing factories: SOMADIR.

In view of the high rate of utilisation of the production capacity existing in 1972 (93%), it appeard necessary to plan a larger extension. As the demand for dried yeast, however, has tended to increase faster than the demand for fresh yeast and the production capacity of dried yeast will probably prove inadequate it may be necessary to import the product, no account of which is taken in the table above.

Present production in fact is directed more towards fresh yeast. Extension of the factory at Somadir will ensure the production of dried yeast in greater quantities.

Situation in 1968 (production capacity)

SOMADIR	6,000 tons	
OCEIT	2,000 tons	(started operations at the beginning of 1968)
total	8,000 tons	

Situation in 1973

OCEIT	2,000 tons	
SOMADIR	11,000 tons	(5,000 ton extension)

Out of these 13,000 tons, 3,300 tons a year of fresh yeast will be processed into 1,100 tons of dried yeast.

Extension

Location : Casablanca

Description: extension of the factory at Somadir, production capacity being increased 6,000 to 11,000 tons of fresh yeast approximately 30% of which will be processed into dried yeast.

Investment
breakdown of expenditure:

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Imported material		600	600
Moroccan material and purchases	300	100	400
Working capital	440	60	500
Total	740	760	1,500

Total investment : 1,500,000 DH
Foreign exchange investment: 760,000 DH
Operation: the breakdown of expenditure and receipts is as follows :

Unit : 1,000 DH

	Receipts	Expenses
Extension of production 3,000 tons x 1,290 DH/ton	3,870	
Intermediate consumption	-	1,744
Wages and salaries		
senior staff and employees	-	100
labourers		100
Financial charges, amortisation		200
Balance		1,726
Total	3,870	3,870

Jobs created

Senior staff	3
Labourers	20
Total	23

Total wages (including social service charges)
: 200,000 DH

Sector 3 Tinned and Frozen Food

Sub-sector 3-1 Tinned Fish

Characteristics of the sector

Unit : ton

	Situation 1968	Situation 1973	Increase	Annual rate of increase
Home needs				
Sardines	3,200	3,600	400	2.5%
Others	1,000	1,150	150	
Estimated exports				
Sardines	35,000	39,700	4,700	2.8 %
Others	10,000	11,350	1,350	
Total needs	49,200	55,800	6,600	2.5%
Production capacity				
Sardines	79,000	79,000	0	
Others	20,000	20,000	0	
Annual Production	49,200	55,800	6,600	
Rate of utilisation of the production capacity	50%	56%	6%	
Necessary imports	0	0	-	

The Moroccan market is limited; exports are the main outlet.

The annual growth rate is low in both cases. It was estimated at 2½%. In fact the growth in exports is dependent on overseas markets and the vigorous sales efforts of the industry. Very particular attention should be given to reducing prices as tinned goods are only sold at present under the quota system.

Production capacity is still considerably in excess of production (56% in 1973).

No extensions in this sector under present conditions are therefore needed.

A fresh start however may be possible but based on larger and more up-to-date factories disposing of modern and better equipped fishing fleets. Production should be rationalised.

3-2 Fruit and Vegetable Juices and Concentrates

This market is mainly directed towards exports: oranges, pamelos, lemons, grapes, vegetable juices and concentrated juices.

Home consumption scarcely exceeds 5% of total production.

During the 1968-1973 period a unit is planned which will process 15,000 tons of citrus fruits, grapes, vegetables, artichokes and tomatoes a year.

1. Movement of the citrus fruit juice market

1. Moroccan exports

These go mainly to Western Europe, particularly France.

They have increased considerably over past years, rising from 0.2% in 1961 to 13.3% in 1965 of continental Europe's imports.

Unit : 1,000 tons

	1962	1963	1964	1965
Imports by Continental Europe	61.2	63.4	62.9	66.1
Morocco's share	4.8	5.9	8.4	8.8

The fruit juice market has grown considerably over past years. Europe, however, has still not reached the *per capita* consumption of the U.S.A. and consumption by the East European countries is still negligible.

The consumption per head of citrus fruit juice is 15 times higher in the U.S.A. than in Europe.

The table below shows the movement of Europe's imports over the period 1960-1965.

Europe's imports (P.34)

	1960	1961	1962	1963	1964	1965	Annual rate of increase
Natural and concentrated juice: Total Europe (1,000 tons)	196.2	199.4	215.2	228.4	245.4	262.1	6%
: Continental Europe (1000 t)	120.5	128.0	153.5	173.5	175.5	188.1	9.2%
United Kingdom (10^6 gall.)	18.2	16.2	14.9	13.2	17.3	17.8	0%
Unconcentrated juice: Continental Europe (1000 t)	30.7	29.9	45.1	44.3	46.0	49.1	10.3%
United Kingdom (10^6 gall.)	9.6	9.0	9.3	8.9	10.8	11.4	4.5%
Concentrated juice: Continental Europe (1000 t)	18.0	19.0	21.6	25.9	26.0	27.3	9%
United Kingdom (10^6 gall.)	1.7	1.4	1.1	0.9	1.3	1.3	-5%

Sources: Centre du Commerce International,
(International Trade Centre)
Geneva

In the light of this table it appears that the fruit juice industry will continue to find a market.

Morocco's citrus fruit juices resources

The table below shows the production of Moroccan citrus fruits by region and indicates the regions where factories will be set up during the 1968-1973 period.

Production by region

Production and consumption by region (1970)

	Production (1,000 t)	Exports (1000 t)	Available (1000 t)	Consumption and losses (1,000 t)	Final surplus (1000
Casablanca	48	17	31	85	- 54
Gharb-Rabat	540	221	319	30	289
Meknes-Fez	100	55	45	35	10
Tadla	72	65	7)		-
Berkane	28	12	16)		
Larache-Tangiers	22	10	12)	73	-33
Marrakesh	45	40	5)		
Sous	95	80	15	7	8
TOTAL	950	500	450	230	220

The table shows an extensive surplus in the Gharb. It seems feasible to build a factory in this region (Sidi-Slimane) at the beginning of the Plan. Another factory could also be built at the end of the Plan at Larache. A further 20,000 and 12,000 hectares will also be planted in the Gharb and the Loukkos.

Investment

The estimated cost of the factory is as follows:

Nature	Expenditure (in 1,000 DH)
Initial expenditure	2,000
Land, Buildings	1,000
Imported equipment	4,710
Assembly	300
Power	100
Contingency fund	900
Working capital	7,000
TOTAL	16,010

Jobs created

The factory is designed to operate all through the year. Its construction will provide 30 permanent jobs, four of which will be senior staff.

Seasonal employment is estimated to be the equivalent of 170 permanent jobs.

Operation

The factory should export some 95% of its production

	Receipts (1,000 DH)	Expenses (1,000 DH)
Sales	15,000	
Raw materials		3,780
Sugar		130
Packaging		2,500
Various		2,500
Bottling		750
Power, overheads		800
Wages		580
Sales expenses (commissions)		450
Balance		3,510
TOTAL	15,000	15,000

Fruit resources

Based on Morocco's orchards and the yield from young trees production from the various fruit trees grown in Morocco, apart from citrus fruits, was also assessed. Comparing the anticipated production in 1970 and Morocco's anticipated consumption at the same period we obtain the production available for export and processing.

Fruit	Production	Moroccan consumption	Available for exports and processing
Nursery fruits	20,000	11,400	8,600
Apricots	14,500	13,100	1,400
Stone fruits	4,000	3,800	200
Market garden produce	96,000	92,300	3,700
Grapes	36,500	43,800	- 7,300
Figs	29,000	31,300	- 2,300
Various (almonds, nuts etc..)(1)	10,000	15,100	- 5,100
TOTAL	210,000	210,800	- 800

(1) The "various" item includes many fruits and although there is an overall deficit in volume there are 3,000 tons of almonds and various nuts for export and processing.

Plan's Targets (in 1,000 t)

The 1968-1973 Plan aims considerably to increase the production and export of fruit and vegetable juices and concentrates.

	1968	1973	Increase 1968-1973
Home consumption	1,000	1,100	100
Exports	20,000	25,300	5,300
Imports	250	150	- 100
Home production	21,000	26,400	5,400
Production capacity	34,000	45,000	11,000

To obtain this increased production a factory will be built which will process 15,000 tons of citrus fruits, tomatoes, grapes, artichokes... a year.

SUB-SECTOR 3-3

Olive and caper preserves and semi-preserves

Characteristics of the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968-1973	Annual rate of increase
Home needs	2,500	2,750	250	2%
Estimated exports	10,900	13,350	2,450	4.5%
Total needs	13,400	16,100	2,700	4%
Production capacity	18,000	20,000	2,000	
Annual production	13,400	16,100	2,700	4%
Rate of utilisation of production capacity	74%	80%	+ 6%	
Imports needed	0	0	0	

This sector is experiencing difficulties at present because of the considerable drop in production after 1965 as shown in the table below.

Olives and capers

Unit : ton

Production	1961	1962	1963	1964	1965	1966 estimate	1967	1968 (assumed)	1973 based on 4%/year
Olives	8,901	9,960	16,404	14,406	9,301	11,000	-	11,500(1	13,800
Capers	952	1,099	1,368	900	1,902	1,900	-	1,900(2	2,300
Total	9,853	11,059	17,772	15,306	11,203	12,900	-	13,400	16,100

Needs in 1968 have been assessed as follows:

Olives (1) the average for the years 1964/65 was taken

Capers (2) the figures for 1965-1966 were adopted as these were stable.

The rate of increase of Moroccan needs was estimated at 2% and that of exports at 4½% resulting in total needs of 16,100 tons in 1973.

As this is a seasonal industry a rate of utilisation of production capacity should be maintained below 80%.

It is planned therefore to build a production unit for tinned olives and capers with a production capacity of 2,000 tons a year, thereby raising the total country's capacity to 20,000 tons a year.

This plant would require an investment of 4,000,000 DH (including working capital).

Production from this factory would be broken down as follo

Olives	1,700 t
Capers	300 t
Total	2,000 t

Morocco's total production would be as follows:

	1968	1973
Olives	11,900	13,800
Capers	1,900	2,300
Total	13,800	16,100

Jobs created

Permanent staff	20
Seasonal staff	200
Total	220

SUB-SECTOR 3-3

FRUIT AND JAM PRESERVES

Characteristics of the sector

Unit : ton

	Situation 1968	Situation 1973	Increase	Annual rate of increase
Home needs	3,500	3,850	350	2%
Estimated exports	15,800	19,250	3,450	4.5%
Total needs	19,300	23,100	3,800	4%
Production capacity	28,000	29,000	1,000	
Annual production	19,100	22,900	3,800	4%
Rate of utilisation of production capacity	68%	79%	+ 11%	
Imports needed	200	200	0	
Percentage of imports compared with needs	1%	0.9%	- 0.1%	

This appears to be a difficult sector at the moment because of the considerable drop in production after 1965 as indicated by the table below.

Fruit preserves

Unit : ton

Production	1961	1962	1963	1964	1965	1966 est-imate	1967	1968 (assu-med)	1973 based on 4%/ year
Natural fruits	10,412	10,624	8,107	9,413	4,019	6,485	-	8,200(I)	9,800
Pulp	3,735	3,720	4,300	5,109	4,551	2,917	-	4,000(I)	4,800
Fruit in Syrup	4,612	4,550	6,389	6,180	4,932	5,714	-	5,400(I)	6,500
Jams	3,482	3,711	3,481	3,231	1,090	837	-	1,500(2)	1,800
TOTAL	22,241	22,605	22,277	23,933	14,592	15,953	-	19,100	22,900

In view of the very considerable drop in production in 1965 and 1966 it is difficult to assess the figures to be taken as a basis for 1968. An average was taken for the first three items (1) over the years 1962-1965 in the hope that this drop will be temporary.

The drop in jam production (2) is such that in spite of a slight recovery in 1967 compared with 1965-1966, a figure had to be adopted for 1968 which is lower than the average for 1961-1964

The growth rate of Moroccan needs was estimated at 2% and that of exports 4½% thus giving total needs of 29,000 tons in 1973. As these are seasonal industries a low rate of utilisation of production capacity should be adopted and this leads to the necessity of planning a slight increase in production capacity of 1,000 tons/year.

A production unit for preserving natural fruit and in syrup will therefore be planned with a capacity of 1,000 tons per annum. This represents an investment of approximately 4 million DH (including working capital).

This factory's production will be distributed as follows:

Natural fruits	470 t
Pulp	225 t
Fruit in syrup	305 t
	1,000 t

The distribution of the country's total production will be as follows:

Unit : ton

	1968	1973
Natural fruits	8,200	9,800
Pulp	4,000	4,800
Fruit in syrup	5,400	6,500
Jam	1,500	1,800
Total	19,100	22,900

Jobs created:

Permanent staff	50
Seasonal staff	200
Total	250

SUB-SECTOR 3-3

Tinned vegetables

(tomatoes other than juice - peas - French beans - various cooked dishes)

Characteristics of the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968-1973	Annual rate of increase
Home needs	1,500	1,650	150	2%
Estimated exports	9,400	11,350	1,950	4%
Total needs	10,900	13,000	2,100	4%
Production capacity	14,000	16,000	2,000	
Annual production	10,500	12,600	2,100	4%
Rate of utilisation of production capacity	75%	79%	+4%	
Imports needed	400	400	0	
Percentage of imports compared with needs	3.7%	3%	-0.7%	

This appears to be a difficult sector at the moment because of the considerable drop in output after 1965, as shown in the table below.

Tinned vegetables

Unit : ton

Production	1961	1962	1963	1964	1965	1966 estimate	1967	1968 (assumed)	1973 based on 4%/year
Tomotoes (not juice)		2,200	3,411	5,271	5,130	3,500	-	5,000(1)	6,000
Peas		3,242	2,067	1,364	1,878	4,500	-	5,500(2)	6,600
French beans		1,727	2,977	1,496	2,254				
Cooked dishes		408	188	1,064	796				
Other preserves		79	187	2,234	325				
Total		7,656	8,830	11,429	10,383	8,000	-	10,500	12,600

As this is a seasonal industry a low rate of utilisation of production capacity should be adopted and this leads to the necessity of planning an increased production capacity of 2,000 tons a year to maintain a rate of utilisation less than 80%.

Construction of a tinned vegetable production unit is therefore planned with a capacity of 2,000 tons/year, representing an investment of 7 million DH (including working capital).

Jobs created:

Permanent staff	50
Seasonal staff	200
total	250

This factory's production will be distributed as follows:

Tomatoes	975 t
Peas	375 t
French beans	475 t
Various	175 t
	2,000 t

The distribution of the country's total production is as follows:

	1968	1973
Tomatoes	5,000	6,000
Peas	2,000	2,400
French beans	2,500	3,000
Various	1,000	1,200
Total	10,500	12,600

Sub-Sector 3-4 Tinned Meat

CHARACTERISTICS OF THE SECTOR

	Situation 1968	Situation 1973	Increase 1968-73	Annual rate of increase
Home needs Estimated exports Total needs	2,000 - 2,000	2,300 (1,000)(I) 3,300	300 1,000 1,300	3%
Production capacity Annual production Rate of utilisation of production capacity	3,000 2,000 66%	(5,000)(2) 3,300 66%	2,000 1,300	
Imports needed	0	0		

This sector is relatively unknown. The 1960-1964 Five Year Plan in fact estimated home needs at 3,500 tons in 1965. With the departure of the foreigners the native Moroccan population consumes practically no tinned meat and home consumption thus fell over the following years to less than 1,500 tons a year.

There has been a slight recovery in the situation, however, from which home needs can be estimated at 2,000 tons a year in 1968, with an annual growth rate of 3% being the maximum forecast.

Exports were also estimated in 1973 at 1,000 tons/year (1). Total needs therefore will amount to 3,300 tons/year and an extension of production capacity from 3,000 to 5,000 tons/year (2) is planned by setting up a 2,000 tons/year unit.

These figures are not consistent with stockbreeding resources. According to figures issued by the Ministry of Agriculture the country is consuming at present some 160,000 tons of various kinds of meat and it can be assumed that some 140,000 tons of meat are lost each year:

either by dry loss: mortality of beasts sent to market at the end of the rainy season, notsold then having to face the dry season without any assistance whatsoever.

Or by loss of weight: reduction of weight (from 40-50%) during the dry season of unslaughtered beasts at the end of the rainy season.

Measures should therefore be adopted to remedy these losses.

1) By obtaining accurate information as to the numbers, health condition of cattle, available tonnages etc.

2) By improving and stabilisjng the market:

- either by transferring unsold animals to irrigated regions at the beginning of the dry season
- or by immediate export
- or by slaughtering, followed by freezing or canning.

Some 20 to 25,000 tons of meat could thus be made available each year for processing into tinned meat.

A survey should be made immediately of:

- the capacity of the factories to be built;
- the quantities to be exported.

A 2,000 tons/year plant, in fact, would be scarcely viable because of the high cost and difficulty in exporting.

Exports of considerable quantities of up to 25,000 tons a year, however, would need a very thorough study of the export market.

The ideal solution at present would seem to be:

1) To study overseas markets in order to increase exports to 10,000 tons a year.

2) To plan and build a unit with a production capacity of 10,000 tons/year which would need an investment of some 15,000 DH, taking in account that in addition to the canning plant cold storage depots would have to be provided in order to spread manufacture over the whole year (1). The supply of meat, in fact, is seasonal and is concentrated over a very small part of the year.

This plant would create some 600 new jobs. Its location would have to be determined.

(1) A cold storage chain for the whole of Morocco is being studied at the moment.

SUB-SECTOR 3-5 FLOUR AND FISH OIL

(excluding Sonafap flour)

CHARACTERISTICS OF THE SECTOR

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/1973	Annual rate of increase
Home flour needs	2,500	3,000	500	4%
Estimated exports				
Flour	24,000	40,500	16,500	
Oil	6,000	9,500	3,500	
Total needs (flour + oil)	32,500	53,000	20,500	
Production capacity				
Flour	49,000	59,000	10,000	
Oil	14,000	17,250	3,250	
Annual production	32,500(1)	53,000(2)	20,500	
Rate of utilisation of production capacity	51%	69%	+ 18%	
Imports needed	0	0	-	

The main market for this sub-sector is still exports. The figures shown above therefore are governed, mainly by a study of export markets and a reduction of costs.

These are too high at present to ensure an adequate export market as the purchase price of fish is too high. In fact the price has just been fixed at 0.08 DH/kg by Royal decree.

In order to secure a competitive selling price, however, the price of fish should have a ceiling of 0.07 DH/kg.

This is only possible given large scale units disposing of their own fishing fleets and equipped with up-to-date installations. Current legislation will therefore be studied and a dialogue established between the factories and fishing co-operatives under State supervision.

If these conditions are fulfilled the above figures can be accepted and in this case two factories would have to be built,
one at Safi: production capacity: Flour : 5,000 t
Oil : 2,500 t

and the other at Agadir:
Production capacity : Flour : 5,000 t
Oil : 750 t

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(1) This production capacity is equal to processing 120,000 tons of fish.

(2) Similarly for 200,000 tons of fish.

Or a total of 10,000 tons of flour and 3,250 tons of oil.

Building these two factories would account for an investment of some 3,500,000 DH and would create 200 new jobs.

SUB-SECTOR 3-6

Cold Storage Depots - Ice Factories

This sub sector includes at present:

PORT MULTI-PURPOSE AND COLD STORAGE INSTALLATIONS:

public : 28,000 m3 in capacity
semi-public : 17,500 m3 " "

Freezing tunnels : 50 tons/day for meat

Specialised cold storage units

slaughterhouse cold storage : 6,300 m3
specialised fish cold storage : 8,730 m3

Fish freezing tunnels : 210 tons/day

Total for the country :

cold storage capacity : 60,610 m3

Meat : 50 tons/day
Fish :210 tons/day

ICE MANUFACTURE (Fishing being the main market)

8,000 tons/year

Extensions during the 1968-1973 Plan are at present being studied. This study will take account of the estimates for the fish and meat sub sectors. The following extensions are envisaged at present to the nearest approximation.

	Extension of capacity
Freezing tunnel at Meknes	5/10 tons a day
" " " Marrakesh	5/10 tons a day
State cold storage depot at Meknes	over 1,000 tons
" " " Fez	over 1,000 tons
" " " Marrakesh	over 200 tons
Multi-purpose storage	1,000 tons
Slaughterhouse cold-storage	3,400 m3 incl. 3,000 m3 at Casablanca

A project for building a cold storage depot and an ice manufacturing unit is being carried out.

Production :
Ice : 30 tons/day in chunks
10,000 tons/year

Cold rooms :

1 room with a capacity of 200 tons of ice
1 room with a capacity of 30 tons of fish
1 room with a capacity of 30 tons of fruit and vegetables.

Investment

Total : 851,000 DH, including 440 DH in foreign exchange.

Turnover:

290,000 DH
Balance 19,725 DH

Financing:

Share capital	600,000 DH
Suppliers' credit	100,000 DH
Equipment grant	123,225 DH
Short-term bank loan	85,000 DH

Jobs created: 8

If the above estimates are achieved and taking account of the project built at Al Hoceima, the following capacity should be available in 1973.

Ice manufacture:	90,000 tons/year
Freezing tunnels :	270 tons/day
Various depots :	71,610 m3

Sub-Sector 4-1

PROCESSING OF OIL SEEDS

(Production of unrefined food and industrial oils)

Estimates for the sector:

Unit : ton of unrefined oil

	Situation 1968	Situation 1973	Increase 1968-73	Annual rate of increase
Home needs	75,000 (1)	95,000 (2)	20,000	edible oil: 5% preserving oil: 2½% industrial: 3%
Estimated exports	0	0		
Total needs	75,000	95,000	20,000	
Production capacity	44,000	76,000	32,000	
Annual production	25,000 (3	56,000 (4	31,000	
Rate of utilisation of production capactiy	57%	73%	+ 16%	
Imports needed	50,000	39,000	-11,000	
Percentage of imports compared with needs	66%	41%	- 25%	

Needs can be distributed as follows:

Unit : ton

	Edible Oil	Oil used in canning factories	Oil for industrial purposes
1968 needs 75,000 t	64,600	4,400	6,000
1973 needs 95,000 t	82,400	5,200	7,400

Unrefined oil is sold either to the oil refineries (liquid food oils) or to paint manufacturers (linseed oil). The market up to now has not governed production and only the lack of oil seeds and the high cost of imported seeds limit the output of the processing sub sector.

The question of production therefore depends solely on agricultural possibilities. The production of oil seeds at the moment is estimated at:

Sunflower: 10,000 hectares or 10,000 tons of seeds or 4,000 tons of unrefined oil
Cotton : 25,000 hectares or 25,000 tons of seeds or 5,500 tons of unrefined oil
Safflower: as a reminder.

The processing factories dispose at the moment of a total of 35,000 tons of seeds or 9,500 tons of unrefined oil.

Plan's Targets

Sunflowers: To increase sowings to 45,000 hectares or 45,000 tons of seeds or 18,000 tons of unrefined oil.

Achievement of this programme depends on certain practical sales conditions. It can only be achieved towards the end of the Plan (in 1973).

Cotton: To increase sowings to 50,000 hectares or some 50,000 tons of seeds or 11,000 tons of unrefined oil.

Safflower: 3,000 tons of unrefined oil.

It can thus be seen that seed production should rise from 35,000 tons at present to 98,000 tons in 1973.

If this is the case the production of oil from Moroccan seeds will rise from 9,500 tons to 34,000 tons in 1973 to reach production figures shown in the table above (56,000 tons of unrefined oil in 1973). Imports of 32,500 tons of seeds from abroad will be sufficient (13,000 tons of unrefined oil).

On this assumption production would be broken down as follows:

- One existing factory (SEPO) with a processing capacity of 50,000 tons of seeds at 40% or 20,000 tons of unrefined oil.
- A factory being built (Sigo-Gharb starting in 1968) with a final capacity of 60,000 tons of seeds at 40% or 24,000 tons of unrefined oil.
- Project for building two factories, each with a processing capacity of 40,000 tons of seeds, or 80,000 tons in all, or 32,000 tons of unrefined oil. (One in 1971, the other in 1973

The annual production of 56,000 tons of unrefined oil will thus be reached as planned in the table below.

Unit : Ton (in 1973)

	Seed processing capacity	Unrefined oil production capacity	Annual productio of unrefined oil
SEPO	50,000	20,000	14,000
Sigo-Gharb	60,000	24,000	18,000
Project for two identical units	80,000	32,000	24,000
Total	190,000	76,000	56,000

Sigo-Gharb

Location: Kenitra
Description: Building an oil seed processing factory for the production of unrefined oil.

Processing capacity: 60,000 tons of seeds
Production capacity: 24,000 tons of unrefined oil
Annual production planned in 1973: 18,000 tons

Investment

Breakdown of expenditure.

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Land and development	800		800
Buildings			
Local purchases	1,700	400	2,100
Imported material	-	1,400	1,400
Production equipment	3,800	8,150	11,950
Auxiliary equipment	50	400	450
Rolling stock	470	630	1,100
Others, contingency fund	350	350	700
Assembly	920	230	1,150
Working capital	4,500	1,500	6,000
Total	12,590	13,060	25,650

Total investment: 25,650,000 DH
Foreign exchange investment: 13,060,000 DH

Operation

The breakdown of receipts and expenditure is as follows:

Unit : 1,000 DH

	Receipts	Expenses
Unrefined food oils	37,760	
(Oilcake (21,300 tons)	8,520	
Intermediate consumption		40,492
Wages and Salaries		1,784
Financial charges - insurance - interest on working capital -		1,070
- amortisation		1,665
- balance		1,269
Total	46,280	46,280

Jobs created:

Unit : 1,000 DH

	Numbers	Wages
Administrative grades	14	312
Technical grades	24	456
Labour	298	986
Total	336	1,754

Creation therefore of 336 jobs representing total wages of 1,754,000 DH.

Project for two factories each with a seed processing capacity of 40,000 tons.

This project is still being studied; the following figures can be adopted:

Investment

30,000,000 DH (including working capital). One of the factories will start operations in 1971 and the other in 1973.

Turnover

Around 60,000,000 DH

Jobs created

Around 450 new jobs representing wages of 2,340,000 DH.

The entire projects to be carried out during the Plan, therefore, represent:

Unit : 1,000 DH

	Investment	Turnover	Jobs created	Wages
Sigo-Gharb (60,000 tons of seeds)	25,650	46,280	336	1,754
1971/1973 Projects (80,000 tons of seeds)	30,000	60,000	450	2,340
Total	55,650	106,280	786	4,094

Sub-Sector 4-2

Refining seed oil
Estimates for the sector

Unit : Ton

	Situation 1968	Situation 1973	Increase 1968/1973	Annual rate of increase
Home needs	71,000	90,000	19,000	edible 5% canning 2½% industrial 3%
Estimated exports	0	0		
Total needs	71,000	90,000	19,000	
Production capacity	111,500	126,500	15,000	
Annual production	71,000	90,000	19,000	
Rate of utilisation of production capacity	63%	71%	+ 8%	
Import needs	0	0		

The growth rate of edible oil was estimated at 5% and corresponds to the increase in consumption noted over the past years.

Present production capacity is adequate to cover needs up to 1973. Expansion, however, is planned because of:

- the existence of the Rharb Oil Seed Company at Kenitra which has decided to renovate and completely renew its installations;
- the favourable location of this factory at Kenitra in the Gharb: since the factory stopped operating no oil refinery has been working. The building of a processing factory at Kenitra will also enable the factory to be supplied locally.

The present situation of the refineries is as follows:

Unit : ton

Location	Refining capacity
Casablanca (4 factories	96,900
Fez (2 factories)	8,000
Meknes (1 factory)	4,800
Marrakesh (1 factory)	1,800
Total	111,500
Expansion during the Plan Kenitra (1 factory)	126,500

Study of the Kenitra factory project

Description: Rebuilding and renovation of the major part of the existing factory's manufacturing equipment.
Production: Oil refining
Production capacity: 15,000 tons/year of refined oil.
Planned production at start of operation (quota) 6,000 tons/year

Investment

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Civil engineering	755	177	932
Imported equipment	-	1,111	1,111
Local equipment	795	200	995
Rolling stock	120	160	280
Sundry	200	50	250
Assembly	88	21	109
Total	1,958	1,719	3,677

The total investment amounts to 3,677,000 DH (excluding working capital).

Foreign exchange investment : 1,719,000 DH

Financing:
1,470,000 DH from shareholders' contributions
2,210,000 DH from a long-term loan from the B.N.D.E.

Jobs: some 40 jobs will be created by the renovation of this factory.

Sub-Sector 4-4 Margarine Works

Morocco consumed 1,896 tons of margarine produced entirely locally in 1964. This is a completely static sector. Estimates for 1968 were therefore fixed at 2,000 tons and the rate of annual increase at 2%, which appears to be a maximum.

Estimates for this sector

Unit : ton

	Situation 1968	Situation 1973	increase 1968/1973	Annual rate of increase
Home needs	2,000	2,200	200	2%
Estimated exports	0	0		
Total needs	2,000	2,200	200	
Production capacity	4,250	4,250	0	
Annual production	2,000	2,200	200	
Rate of utilisation of the production capacity	47%	52%	+ 5%	
Imports needed	0	0		

In view of the surplus capacity up to 1973 (52%), local production will be governed solely by local needs.

In order to render this sector more profitable an attempt should be made to find export markets in order that the existing plant can be more profitably utilised.

Sub-sector 4-5

Dairy Produce

Market and output

Annual consumption per inhabitant (in equivalent to 1 litre of milk) in 1960 was as follows (approximate figures)

Unit : litre

	MOROCCAN		FOREIGNERS
	Rural sector	Urban sector	Rural & Urban
Fresh milk	19.3	12.3	72
Tinned milk	0.3	3.3	39
Butter	25.0	21.0	196
Cheese	0.4	0.4	93
Total	45.0	37.0	400

The number of inhabitants in 1960-1967 and estimates for 1973 are as follows:

Unit : 1,000 inhabitants

	1960	1967	1970	1973
Europeans and others	560	260	215	190
Muslim town-dwellers	2,910	4,130	4,910	5,610
" country-dwellers	8,160	9,750	10,400	11,025
Total	11,630	14,140	15,525	16,825

Human milk-consumption in Morocco in 1960 with sources of supply are shown in the table below:

Unit: 1 million litres

1 9 6 0	Resources		Total		Household consumption		
	Production	Imports	Volume	%	Country dwellers	Town dwellers	Foreigners & European
Milk	222	-	222	35	65	135	22
Tinned Milk	-	23	23	4	3	9	11
Butter	293	66	359	56	236	61	62
Cheese	4	29	33	5	3	1	29
Total	519	118	637	100	307	206	124

Output remained stable between 1960 and 1961 and the increase in consumption was covered by an increase in imports. In spite of the drop in the number of Europeans, the per capita consumption was maintained as a result of higher consumption by Moroccans which offset the drop in consumption by Europeans.

This is a balance, however, of milk equivalents and not a balance of nutritional elements. It is to be feared that the consumption of proteins has decreased as the increase consisted mainly of imported butter. This is therefore an important objective for the Plan: to increase the dairy industry's production in order to increase the consumption of milk in the urban conurbations.

Increased production over the present Five Year Plan will probably still remain below the increase in needs as a result of Morocco's growth in population; this will necessitate an increase of some 12% in imports needed to maintain present per capita consumption.

Unit:1 million litres

	Production	Imports	Total	Household consumption		
				Country dwellers	Town dwellers	Foreigners
1967 Milk equivalent	512	171	683	438	135	110
1973 Milk equivalent	576	191	767	484	203	80

Production targets

From the above mentioned quantities the dairy industries collect at the moment 28 million litres a year or in the region of half the urban consumption. The Ministry of Agriculture has therefor a triple objective:

1 - to offer consumers cheaper, good quality products better suited to their tastes

2 - to increase milk production

3 - to increase the capacity of the dairy industries

Out-of-date equipment will be renewed and the management of these industries will be improved in order to strike a balance between production and demand; dairy industries which had closed down will be reopened.

It is mainly the points in the above paragraph which conern this sector and they will be examined in detail.

The production growth forecasts and the corresponding investment depend on three assumptions:

1 - the delivery of pasteurised milk, 35 grams of fats per litre, as at present;

2 - delivery of pasteurised milk, 20 g/fats/litre sales of loose raw milk

3 - delivery of pasteurised milk 20 g/fats/litre sales of loose raw milk prohibited.

The increased production capacities corresponding to the three above-mentioned assumptions are shown in the table below, together with the corresponding investment needed. The following dairy works are concerned:

Resumption of operations of dairy works now idle:

State Dairy Works at Keknes (also used as a school)
Casablanca Co-operative

Renewal of equipment

Kenitra milk co-operative
Oujda co-operative
Marrakesh co-operative

Unchanged: The Casablanca Dairy Industry

The table below shows the present capacity and the expansion required to meet the three above-mentioned assumptions. It also shows the investment estimates needed, corresponding to the same three assumptions.

OUTPUT OF THE DIFFERENT DAIRY INDUSTRIES - Invesment planned

		1st assumption: pasteurised milk, 35 g/fats/litre		2nd assumption: pasteurised milk, 20 g/fats/litre - sales of loose raw milk permitted		3rd assumption: pasteurised milk 20 g/fats/litre - sales of loose raw milk prohibited	
Forecasts of total milk sales. Percentage of pasteurised milk.		88,000 tons/year 60%		100,000 tons/year 65%		110,000 tons/Year 100%	
Dairy Industries	Present pasteurised milk production capacity	Increase in capacity (maximum	Investment needed for expansion	Increase in capacity (maximum)	Investment needed for expansion	Increase in capacity (maximum)	Investment needed for expansion
	153,000 litres/day	102,000 litres/day	2,950,000	202,000 litres/day	4,200,000	336,000 litres/day	6,550,000

Assumptions 2 and 3 have the advantage of providing the dairy industries with a certain amount of cream for the manufacture of butter and still keeping milk possessing the necessary qualities: amino-acids, calcium, vitamins, phosphorus etc.

Butter accounts for 50% of dairy imports and it is therefore more economic to produce the maximum quantity of butter locally.

For the above-mentioned quantity of milk, the quantity of butter produced would be some 640 tons, or 30% of imports. The problem would be to induce the population to accept this type of milk with 20 g/fats/litre. Another advantage of the 20 g/fats/litre milk is that the recovery of butter would enable the cost of pasteurised milk to be considerably reduced.

In addition to the projects for expanding or re-opening existing dairy industries and in view of the variability of milk production over the year, a project is planned to build a cheese factory and possibly a milk powder factory:

This project is being studied:

Location: Lower Moulouya
Planned investment: 2,500,000 DH

The total investment in the milk sector in respect of dairy industries and factories producing cheese and milk powder amounts to:

1st assumption	5,450,000 DH
2nd assumption	6,700,000 DH
3rd assumption	9,050,000 DH

In the case of the third assumption, the total investment in the dairy sector amounts to 12,410,000 DH, taking into account advertising and publicity expenditure: this covers publicity properly so called and also the distribution of milk in schools.

Finally, 5,040,000 DH are estimated for the setting up of milk collecting and cooling centres prior to despatch to the dairy industries.

Sub-sector 5-1

Industrial Flour Mills

Characteristics of the sector

The output of the industrialflour mills accounts on average for 33% of total needs. Present needs are estimated at 24 million (metric) quintals. With an unchanged per capita consumptionthe annual growth rate can be estimated at 2.8% resulting in the total needs in 1973 being 28,300,000 quintals.

The industrial flour mills should therefore produce some 9,300,000 quintals in 1973.

Assuming a 75% rate of utilisation of the production capacity, the maximum theoretical production capacity should be 12,400,000 quintals. Present production capacity, however, is:

at 1.1.66	8,500,000 quintals
Building permits granted subsequently	800,000 "
Total, end of 1967	9,300,000 "

An increased production capacity of 3,100,000 quintals should therefore be planned between 1968 and 1973.

These figures are summarised in the table below which is solely concerned with industrial flour mills.

Unit: 1 million (metric) quintals

Year	Present capacity	Needs Production means	Rate of utilisation of capacity	Increase in capacity	Annual rate of growth
1966/67	8.5	6.2	73%		
1968/69	9.3	7.0	75%	(0.8	
1973/74	12.4	9.3	75%	(3.1	6%

The annual rate of increase for the industrial flour mills is therefore estimated at 6%, whereas the growth rate of total needs in cereals only amounts to 2.8%. The industrial flour mills will gradually replace the craft-industry flour mills.

The rise of 3,100,000 quintals between 1968 and 1973 represents a natural expansion of the existing flour mills and the minimum programme to be adopted is the building of one unit a year (13.5 metre contact roller, 17,000 quintals per metre of roller).

Building permits will be granted on this basis.

Sub-sector 5-1

Starch and Glucose factories

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968-73	Annual rate of increase
Home needs				
starch	600	800	200	6%
glucose	2,800	3,400	600	4%
Estimated exports	0	0		
Total needs				
starch	600	800	200	6%
glucose	2,800	3,400	600	4%
Production capacity				
starch	1,000	1,000	0	
glucose	4,000	4,000	0	
Annual production				
starch	600	800	200	
glucose	2,800	3,400	600	
Rate of utilisation of the production capacity				
Starch	60%	80%	+ 20%	
glucose	70%	85%	+ 15%	
Imports needed	0 (1)	0 (2)		

The annual rate of growth was estimated as a function of the needs of industrial users:

- 6% for starch and 4% for glucose.

(1) In view of the special nature of certain starch and glucose derivatives, certain imports will still have to be maintained: anhydrous dextrose for the needs of the pharmaceutical industry certain pastes or prepared substances for industrial needs, such as the leather, textile, paper and board industries, etc.

As the overall quantity is small no account of them was taken in the above table. The rate of utilisation of the production capacity will still be within acceptable limits up to 1973 and the existing production capacity is perfectly adequate; no expansion will therefore be needed during the Plan.

Sub-sector 6-1 Breweries

Demand since 1963 has grown as follows

Unit : hectolitre

	1963	1964	1965
Sales from Moroccan factories	234.000	296,700	208,616
Imports	15,030	13,860	12,050
Total	249,030	310,560	220,666

As in 1958, Moroccan factories produced 306,000 hl and imports amounted to 45,300 hl, or a total of 351,300 hl. This shows therefore a considerable drop in demand due to the decreasing numbers of European consumers.

The situation improved somewhat after 1965. This led to demand in 1968 being estimated at: 250,000 hl and the growth rate between 1968 and 1973 being estimated at 2%.

Estimates for the sector

Unit : hectolitre

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	250,000	276,000	26,000	2%
Estimated exports	0	0		
Total needs	250,000	276,000	26,000	2%
Production capacity	470,000	470,000	0	
Annual production	235,000	261,000	26,000	
Rate of utilisation of the production capacity	50%	55%	+ 5%	
Imports needed	15,000	15,000	0	
Percentage of imports compared with needs	6%	5.4%	-	

The rate of utilisation of the production capacity will still be low (5%) up till 1973 and there is therefore no necessity for any expansion during the Plan to be envisaged.

Sub sector 6-1 Malt-factory

Estimates for the sector

Unit : Quintal

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	32,700	36,100	3,400	2%
Estimated exports	10,000	10,000	0	
Total needs	42,700	46,100	3,400	
Production capacity	60,000	60,000	0	
Annual production	42,700	46,100	3,400	
Rate of utilisation of the production capacity	71%	77%	+ 6%	
Imports needed	0	0		

Malt production in 1964 amounted to 42,150 quintals and was broken down as follows:

Home needs	30,850 q
Exports	11,300 q

Both output and needs have been stagnant over the past years. Home needs are now estimated at a fairly low level and the annual growth rate is estimated at a mere 2%.

The rate of utilisation of the production capacity will only be 77% in 1973 and there is therefore no need to plan any expansion under the present Plan.

Sub-sector 6-2

Natural Mineral waters

The present situation in this sector is as follows:

Unit : hectolitre

Year	Production (OULMES)	Imports	Total annual needs
1963	49,000	47,000	96,000
1964	46,000	41,000	87,000
1965	48,000	48,000	96,000
1966	53,000	50,000	103,000

Included in these 103,000 hl are 60,000 hl of aerated mineral waters and 43,000 hl of natural water.

The present national production (Oulmes) is made up solely of aerated water. Consequently imports are concerned almost wholly with natural water.

The demand therefore exists in Morocco for an exploitation of mineral waters, the medicinal qualities of which should be similar to such imported mineral waters as Evian, Vittel etc.

Furthermore, water produced locally would cost 0.65 DH/litre or half the cost of imported mineral waters.

A natural mineral water bottling factory will therefore be built during the period 1968-1972 at SIDI HARAZEM (region of Fez)

This project is based on the following production programme:

1968	:	3,000,000 bottles	(15,000 hl)
1969	:	4,500,000 bottles	(22,500 hl)
1970	:	6,000,000 bottles	(30,000 hl)

As present demand is 43,000 hl this programme will meet the country's needs.

Characteristics of this project

Location: Sidi Harazem (region of Fez)
Description: The first objective is to market 3,000,000 bottles containing 90.50 and 25 cl in 1968. The average is 50 cl and production will therefore be 15,000 hl in 1958. This production is planned to rise to 30,000 hl in 1970.

These mineral waters have therapeutical qualities acknowledged by the public health services who, in fact, recommend them for the treatment of digestive disorders.

Investment

Breakdown of expenditure.

Unit : 1,000 DH

Nature of investment	Moroccan expenditure	Foreign Exchange expenditure	Total
Study and research costs	232	232	464
Civil engineering and building	610	140	750
Imported equipment	-	845	845
Equipment purchased locally	140	40	180
Assembly	200	80	280
Handling equipment	-	30	30
Electricity	25	25	50
Rolling stock	8	17	25
Sundry	250	249	499
Engineering and technical aid costs	-	150	150
Working capital	500	203	703
Total	1,965	2,011	3,976

The total investment is therefore 3,976,000 DH including 2,011,000 DH in foreign exchange.

Financing

Share capital
Current account contributions
Long-term loan
Medium-term credit
Equipment grant

Importance of the Projects

Jobs: creation of 30 new jobs

Reduction of present imports of mineral waters (15,000 hl in 1968) which will represent a saving of some 2,000,000 DH.

Medicinal importance

Operation

Unit : 1,000 DH

	Receipts	Expenses
15,000 hl of mineral water	1,740	
Intermediate consumption		800
Labour and social service charges		225
Amortisation		367
Financial charges		120
Taxes		139
Balance		89
Total	1,740	1,740

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[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	
[illegible]	[illegible]	
		[illegible]

[illegible]

Nature of Operation
Study and research
Civil engineering
Improved equipment
Equipment purchase
Assembly
Handling equipment
Electricity
Building plans
Sundry
[illegible]
and tools
Working capital
Total

[illegible]

Finance

[illegible]

[illegible]

Sub-sector 6-2

Sparkling drinks (excluding mineral waters)

Production intended solely for the home market was:

480,000 hl in 1962
385,000 hl in 1963
283,5000 hl in 1964

The considerable drop in demand was due to the rise in the price of sugar. Measures were adopted and the situation partly recovered after 1965. Estimates for 1968, however, were only 335,000 hectolitres but the annual growth rate was fixed at 4% in view of the present increase in demand.

Estimates for the sector

Unit : hectolitre

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	335,000	407,500	72,500	4%
Estimated exports	0	0		
Total needs	335,000	407,500	72,500	4%
Production capacity	550,000	550,000	0	
Annual production	335,000	407,500	72,500	
Rate of utilisation of the production capacity	61%	74%	+ 13%	
Imports needed	0	0		

The rate of utilisation of the capacity of existing factories will only be 74% in 1973; there are therefore no plans for expansion under the present Plan.

Sub-sector 6-3

Tobacco

The cultivation, manufacture and selling of tobacco is a monopoly for which a State undertaking is responsible. The following table shows the estimated growth of this sub-sector.

Characteristics of the sector

Smoking Tobacco

	1968	1973	Increase	Rate of increase
Home needs	5,150	5,970	820	3%
Exports	0	0		
Total needs	5,150	5,970	820	
Production capacity	5,571	6,458	887	
Annual production	2,680	3,100	420	
Rate of utilisation of the production capacity	48%	48%	0	
Imports needed	2,470	2,870	400	
Percentage of imports compared with needs	48%	48%		

Leaf Tobacco

Our manufacturing needs are for 5,000 tons/year of smoking tobacco and for 400 tons/year of snuff.

a) Smoking tobacco

These requirements are covered in part by Moroccan production and in part by imported tobacco leaf.

It would certainly be desirable to save foreign exchange by increasing Morocco's production but, because of the quality of Moroccan tobacco, it is unlikely that more than 50% on average could be introduced in our mixtures.

2,008 tons of smoking tobacco were grown in 1965. This tonnage was produced mainly in the regions of Meknes and Ouezzane by more than 5,000 planters. The price paid for this tobacco was 6,646,152 DH.

First because of the general dryness of the season and secondly because of a heavy attack of mildew, only 1,220 tons were produced in 1966.

Between 1968 and 1973 there should be an annual increase of 3% of the quota of 2,600 tons. We shall then have the following programmes:

- 1968	2,680 t
- 1969	2,760 t
- 1970	2,840 t
- 1971	2,930 t
- 1972	3,000 t
- 1973	3,100 t

b) Snuff tobacco

This variety is grown solely in the region of Agadir by some 400 planters. About 308 tons were produced in 1965 the value of which was 471,033 DH

Production in 1966 was 470 tons and the value amounted to 753,069 DH.

Our programme for 1967 was fixed at 450 tons. According to the latest estimates we shall easily achieve this tonnage.

No increase in this quota is being planned between 1968 and 1973.

It should be pointed out that these estimates relate solely to Moroccan consumption and that if Morocco should be able to export its tobacco, either smoking tobacco or snuff, these estimates would have to be increased accordingly.

Snuff tobacco has been frequently exported to Algeria.

PRODUCTION OF THE FACTORIES

Overall sales of finished products amounted to 5,251 tons for locally manufactured products and 137 tons for imported products.

The overall production capacity of the three factories at Casablanca, Kenitra and Tetouan is 6,200 tons. Assuming a rise of 3% a year we would then produce:

- In 1967	5,409 tons
- In 1968	5,571 tons
- In 1969	5,738 tons
- In 1970	5,910 tons
- In 1971	6,087 tons
- In 1972	6,270 tons
- In 1973	6,458 tons

We could therefore meet demand during the first five years of the period envisaged.

As in previous years, however, equipment should be renewed in order to maintain quality and this presupposes an annual capital equipment budget of approximately 2 million DH.

Studies will have to be carried out during this period either of expanding existing factories or of building another factory and also to attempt to improve preparation in general.

Expansion of factories in order to meet needs for some years would need an investment of approximately 5 million dirhams.

Improvement of general preparation by the installation of beating chains would also need an investment of 5 million dirhams.

An investment of approximately 20 to 30 million dirhams would be required to build a new plant.

MARKETING

Attempts to export have proved disappointing as all countries' tobacco industries are protected by considerable customs barriers or by a monopoly system.

Our sales therefore virtually meet Morocco's requirements and these are shown by tonnage under the section "Production".

Sub-sector 10-3

Plaster

Production was 14,000 tons in 1964, including 3,000 tons for home needs and 11,000 tons for export. The export figure remained constant over the following years but home consumption increased by an average of 200 tons a year. Home needs can now be estimated at 3,600 tons in 1968.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	3,600	4,600	1,000	5%
Estimated exports	11,000	11,000	0	
Total needs	14,600	15,600	1,000	
Production capacity	20,000	20,000	0	
Annual production	14,600	15,600	1,000	
Rate of utilisation of production capacity	73%	78%	+ 5%	
Imports needed	0	0		

In view of the 78% rate of utilisation of production capacity in 1973, there are no plans to expand this sector under the Plan.

Sub-Sector 10-4

Cement

Cement consumption in Morocco has increased regularly over the past few years through increased building developments and the dam policy.

1958	:	473,000 t
1969	:	501,000 t
1963	:	766,000 t
1964	:	828,000 t

This growth was maintained over the following years, partly due to the more generalised use of cement in the rural sector.

Estimates were therefore fixed at 930,000 tons for 1968 with an annual growth rate of 6%.

At the beginning of the Three Year Plan 1965-1967, factory capacity was 900,000 tons and was increased to 1.150,000 tons over the same period as a result of an investment of 12,500,000

Although capacity is adequate special cements are still being imported (HRI, slag cement). These are estimated at 10,000 tons a year.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	920,000	1,230,000	31,000	6%
Estimated exports	10,000	10,000	-	-
Total needs	930,000	1,240.000	310,000	-
Production capacity	1,150,000	1,450,000	300,000	
Annual production	920,000	1,230,000	310,000	
Rate of utilisation of the production capacity	80%	85%	+ 5%	
Imports needed	10,000	10.000	-	
Percentage of imports compared with needs	1.1%	0.8	- 0.3%	

In order to maintain an acceptable rate of utilisation of the production capacity an expansion of production capacity of 300,000 tons/year should be envisaged, raising total capacity to 1,450,000 tons/year. To this end the following existing factories will be expanded:

Location: Meknes, Tangiers, Casablanca, Agadir, Tetouan

Description: Expanding existing factories

Investment planned:

Breakdown of expenditure

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Land	150	-	150
Research	125	125	250
Buildings	2,100	500	2,600
Imported materials	-	19,000	19,000
Local purchases	4,500	1,500	6,000
Vehicles	170	230	400
Sundry	800	800	1,600
Working capital	1,460	540	2,000
Total	9,305	22,695	32,000

Total investment : 32,000,000 DH
including 22,695,000 DH in foreign exchange.

Financing

This could be provided mainly by a long-term loan of 15 million DH, by the equipment grant amounting to approximately 4,200,000 DH and by increasing the share capital of the companies being expanded (12,800,000 DH in all).

Operation

The breakdown of receipts and expenditure is as follows:

Unit : 1,000 DH

	Receipts	Expenses
310,000 tons at 90 DH	27,900	
Intermediate consumption		18,510
Wages and salaries		2,030
Financial charges		1,800
Amortisation		2,920
Balance		2,640
	27,900	27,900

Jobs created	Wages
22 senior grades and employees	330,000 DH
200 specialised workers	1,700,000 DH
322 Total	2,030,000 DH

Sub-Sector 10-6

Cement Agglomerates

Morocco's production has been as follows:

1960	84,000 t
1961	141,000 t
1962	92,000 t
1963	137,000 t
1964	99,000 t

During the following years (1965/67) production stagnated between 10,000 and 110,000 tons. The high output of 1961 and 1963 was never again reached.

Production was therefore estimated at 111,000 tons in 1968 and as there has been a slight recovery recently the growth rate was assessed at 4%. This rate seems acceptable as it will result in a production of 129,000 tons in 1973, which is still lower than the figures for 1961 and 1963.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	91,000	109,000	18,000	4 %
Estimated exports	20,000	20,000	-	
Total needs	111,000	129,000	18,000	
Production capacity	160,000	160,000	0	
Annual production	111,000	129,000	18,000	
Rate of utilisation of the production capacity	69%	80%	11%	
Imports needed	0	0	-	

As the rate of utilisation of capacity will be 80% in 1973 no expansion is envisaged under the Plan.

Sub-sector 11-3

Metal Frames

This sector seems adequately equipped to meet current needs. In view of the Plan's targets, however, and the results achieved under it, present capacity leaves no room for any expansion beyond current needs. Estimates, ignoring any exceptional work, are as follows:

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	6,900	7,750	850	2.5 %
Estimated exports	-	-	-	-
Total needs	6,900	7,750	850	2.5 %
Production capacity	8,000	8,000	0	-
Annual production	6,500	7,300	800	
Rate of utilisation of the production capacity	81%	91%	+ 10%	
Imports needed	400	450		
Percentage of imports compared with needs	6%	6%	-	

Excluding exceptional work, the rate of utilisation of capacity will be 91% in 1973 which is very high. Some expansion is therefore necessary.

Taking into account the work deriving from the building carried out under the Plan, further expansion will be needed.

The Plan therefore proposes an expansion of 2,000 tons/year thus raising total capacity to 10,000 tons/year which would represent a total investment estimated at 2 million DH and the creation of 50 new jobs.

Sector 13

Iron and Steel

Morocco does not at present have a steelworks and the whole of our iron- and steelwork products have to be imported.

Imports (in 1,000 tons)

	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Semi-finished products Slabs, billets	-	-	-	0.3	0.4	0.5	0.1	0.6	0.5	0.6
Merchant bars and rods										
Round and square	17.5	13.7	15.4	17.0	17.5	17.6	15.2	20.5	24.0	18.3
Flat rods and wire	33.2	21.9	31.0	26.6	32.6	41.1	39.1	49.2	60.6	41.8
Small sections	8.0	4.2	7.9	4.8	7.8	7.8	10.9	9.2	11.4	8.7
Total (merchant rods and bars)	58.7	39.8	54.3	48.4	57.9	66.5	65.2	78.9	96.0	68.8
Building Sections and wire	15.4	6.4	11.9	9.7	8.6	9.9	19.6	11.3	17.1	14.9
Tubes	5.4	3.8	6.7	5.8	8.6	11.1	11.1	9.1	8.4	8.8
Flat Rolled Products										
Hot rolled plates and sheets	12.8	10.0	13.8	7.1	13.3	15.0	12.6	12.9	17.0	14.2
Cold rolled sheets	1.1	2.1	4.0	3.8	4.9	6.0	4.5	6.4	8.5	4.5
Galvanised sheet metal	1.8	1.4	2.0	2.4	3.1	2.4	2.9	3.9	7.7	4.9
Tin plate	16.4	20.6	17.8	13.8	21.8	25.7	24.0	24.8	26.4	21.0
Total flat products	32.1	34.1	37.6	27.1	43.1	49.1	44.0	48.0	59.6	44.6
Grand total	111.6	84.1	110.5	91.3	118.6	137.1	140.0	147.9	181.6	137.7

These data show that the growth rate of demand varies according to category. The following percentages are approximate:

- total iron and steel products	6½%
- merchant rods and sections	7½%
- flat sections	5½%
- rails, large sections, tubing	5 %

Annual imports of merchant rods and bars increased at a much higher rate than the other groups of products. They rose from 45,000 tons to 87,000 tons (93% compared with 72% for the flat rolled products and 35% for rails, large sections and tubing) between 1956 and 1965.

In the merchant rolled sections group, round, square and flat iron increased their tonnage by more than the whole of the other products, rising from 25,000 tons to 45,000 tons.

Future demand can be projected from these figures.

Estimate of demand (in 1,000 tons)

	1965	1970	1973	1975
Merchant rods and bars	87	130	160	185
Flat rolled sections	55	70	87	90
Rails, large sections, tubing	23	30	33	35
Total	165	230	280	310

Sub-sector 14-1

Wire-drawing : Transformation and grading of iron wire
Bright wire, galvanised wire and annealed wire.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	13,000	18,000	5,000	7%
Exports	0	0		
Total needs	13,000	18,000	5,000	7%
Production capacity	14,000	19,000	5,000	
Annual production	8,000	15,000	7,000	
Rate of utilisation of the production capacity	57%	78%	+ 21%	
Imports needed	5,000	3,000	-2,000	
Percentage of imports compared with needs	38%	16%	- 22%	

1) In view of increased needs present production capacity is inadequate; the capacity of existing factories needs to be expanded by 5,000 tons (total capacity 19,000 tons).

2) At present the rate of utilisation of existing capacity is very low and efforts should be made to remedy this under the Plan.

The utilisation rate should be increased from 57% to 78% This expansion will need an investment of 2,000,000 DH, broken down as follows:

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Research	10	10	20
Land and development	- Existants		
Buildings	162	38	200
Production machinery	-	850	850
Other plant	98	32	130
Vehicles	- Existants		
Working capital	304	496	800
Total	574	1,426	2,000

Operation

The breakdown of receipts and expenditure is as follows:

Unit : 1,000 DH

	Receipts	Expenses
7,000 tons of wire (bright and galvanised)	5,880	
Intermediate consumption		4,920
Wages and salaries		250
Financial charges		120
Amortisation		108
Balance		482
Total	5,880	5,880

Jobs created		Wages
Senior grades	6	70,000 DH
Skilled workers	5	180,000 DH
Specialised workers	30	
Total	41	250,000 DH

In view of the high profitability of this sector imports should be reduced to a minimum. This industry is of considerable importance for both the contractor and the country.

Sub-sector 14-1

Wire-Nail works: Nails made from bright wire

Nail production has been as follows:

1958 :	2,070 t
1960 :	2,940 t
1961 :	2,280 t
1962 :	2,160 t
1963 :	2,200 t
1964 :	2,300 t

Production thereafter maintained practically the same rate as after 1962; the Plan's estimated production will be 3,100 tons in 1968 and the annual rate of growth was assessed at 7%.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	3,100	4,300	1,200	7%
Estimated exports	-	-	-	-
Total needs	3,100	4,300	1,200	7%
Production capacity	4,700	4,700	-	
Annual production	3,000	4,150	1,150	
Rate of utilisation of the production capacity	64%	88%	+ 24%	
Imports needed	100	150	+ 50	
Percentage of imports compared with needs	3%	3%	-	

Present production capacity is therefore adequate up to 1973. No expansion is envisaged under the Plan.

Sub-sector 14-1

Wire netting and baskets

Needs were 1,360 tons in 1964 and were estimated at 1,550 tons in 1968. The annual rate of increase is estimated at 5.2% resulting in needs being estimated at 2,000 tons in 1973. The present capacity of 1,400 tons/year is therefore inadequate and should be increased to 2,400 tons under the Plan.

Estimates of the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	1,550	2,000	450	5.2%
Exports	-	-	-	-
Total needs	1,550	2,000	450	5.2%
Production capacity	1,400	2,400	1,000	
Annual production	1,150	2,000	850	
Rate of utilisation of the production capacity	82%	83%	+ 1%	
Imports needed	400	0	-400	
Percentage of imports compared with needs	26%	0	- 26%	

In view of the above figures an expansion of 1,000 tons was planned in order that imports can be completely eliminated.

This expansion of 1,000 tons should be divided between the two existing factories in the form of natural expansion.

An investment of some 850,000 DH will be needed which can be broken down as follows:

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Research - Land Development	existing		
Buildings	53	12	65
Imported material	-	500	500
Other plant	63	22	85
Vehicles	existing		
Working capital	110	90	200
Total	226	624	850

Operation

The breakdown of receipts and expenditure is as follows:

	Receipts	Expenses
850 tons of wire netting baskets	1,445	
Intermediate consumption		985
Wages and salaries		146
Financial charges		64
Amortisation		62
Balance		188
Total	1,445	1,445

Jobs created

		Wages
Senior grades	2	26,000 DH
Workers	23	120,000 DH
Total	25	146,000 DH

In view of the high profitability of this sector both from the contractors' and the country's point of view, imports should be reduced to a minimum.

Sub-sector 14-1

Steel Cables

Up to the present steel cables have been wholly imported. Imports have been as follows:

1963	859 tons
1964	1,100 tons

Needs in 1968 were estimated at 1,350 tons and the annual growth rate at 5% in view of the increase in mechanical handling. The Three Year Plan provided for a factory capable of producing 1,200 tons but this factory was not built. It will therefore come within the framework of the present Plan but, because of needs amounting to 1,700 tons in 1973, the capacity of this factory will be at least 1,500 tons/year.

In view of the demand for certain special cables, however, some 25% of needs will still have to be imported.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	1,350	1,700	350	5%
Exports	-	-	-	-
Total needs	1,350	1,700	350	5%
Production capacity	0	1,500	+ 1,500	
Annual production	0	1,250	+ 1,250	
Rate of utilisation of the production capacity	0	83%	+ 83%	
Imports needed	1,350	450	- 900	
Percentage of imports compared with needs	100%	26%	- 74%	

Within the framework of the present Plan, therefore, a factory with a production capacity of 1,500 tons/year of steel cables will be built.

This factory will form part of the AIA metallurgical works in Casablanca and will join the factories producing steel tubing and the forging and pressing works. This complex also manufactures flat cold rolled products (tinned and galvanised), small machine tools, etc...

Characteristics of the steel cables project

Location: Casablanca (former premises of AIA)

Description: Building a factory with a production capacity of 1,500 tons/year of steel cable.

This factory will form part of the AIA complex at present being studied.

Investment planned:

Breakdown of expenditure

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Research and initial expenditure	65	65	130
Land	60	-	60
Buildings	251	59	310
Imported industrial equipment	0	3,500	3,500
Local purchases	525	175	700
Vehicles	30	40	70
Sundry	65	65	130
Working capital	346	364	710
Total	1,342	4,268	5,610

Total investment 5,610,000 DH
including 4,268,000 DH in foreign exchange.

Operation

The breakdown of receipts and expenditure is as follows:

Unit : 1,000 DH

	Receipts	Expenses
1,250 tons of steel cables at 3 DH/Kg	3,750	
Intermediate consumption		2,382
Wages and salaries		280
Financial charges		180
Amortisation		505
Balance		403
Total	3,750	3,750

Jobs created:

Senior grades and employees	15
Specialised and skilled workers	65
Total	80

Sub-Sector 14-1

Steel Tubing

Up to the present steel tubes have been wholly imported. Imports have been as follows:

1958	:	6,545 tons
1960	:	8,400 tons
1964	:	8,200 tons

In view of later consumption, the needs for 1968 were estimated at 10,500 tons and the growth rate at 6%.

Needs in 1973 were therefore assessed at 14,000 tons with approximately half being produced locally. The production of weldless tubes in fact requires very up-to-date equipment and considerable investment; it is therefore preferable to confine production at present to welded tubes.

The 1960-1964 Five Year Plan already provided for a factory with a capacity of 6,000 to 8,000 tons/year but this has not been built. The Three Year Plan 1965-1967 included this project but again nothing was realised. It is therefore essential that this factory be built and this will be one of the objectives of the present Plan.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	10,500	14,000	3,500	6%
Exports	-	-	-	-
Total needs	10,500	14,000	3,500	6%
Production capacity	0	8,000	8,000	
Production	0	7,000	7,000	
Rate of utilisation of the production	0	87%	+ 87%	
Imports needed	10,500	7,000	-3,500	
Percentage of imports compared with needs	100%	50%	- 50%	

Under this Plan therefore a factory will be built with a capacity of 8,000 tons/year (excluding weldless tubes).

This factory will form part of the AIA metallurgical complex and will join the steel cable and forging and pressing factories.

Characteristics of the steel tubing project

Location : Casablanca (former premises of AIA)

Description : Building a factory with a production capacity of 8,000 tons of welded tubes and partially finished. This factory can be built as part of the AIA complex.

Investment planned:

Breakdown of expenditure

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Land	100	-	100
Research	150	150	300
Buildings	567	133	700
Imported industrial equipment	-	4,500	4,500
Local purchases	1,125	375	1,500
Various handling vehicles	64	86	150
Working capital	1,040	960	2,000
Sundry	175	175	350
Total	3,221	6,379	9,600

Total investment : 9,600,000 DH
including 6,379,000 DH in foreign exchange.

Operation

The breakdown of receipts and expenditure is as follows:

Unit : 1,000 DH

	Receipts	Expenses
7,000 tons at 1,500 DH/ton	10,500	
Intermediate consumption		7,500
Wages and salaries		940
Financial charges		320
Amortisation		760
Balance		980
Total	10,500	10,500

Jobs created:

		Wages
Senior grades and employees:	16	290,000 DH
Skilled workers	7)	
Specialised workers and labourers	) 60)	650,000 DH
Total	83	940,000 DH

Sub-Sector 14-2

Aluminium Processing

This sector includes the following products:

Aluminium wrapping paper
Corrugated roof sheeting
Flat sheets (less than 5 mm)
Powder capsule tops
Tubing, wire, cables
Aluminium plate (more than 5 mm) bars
Frames

Production was 390 tons in 1964 against a capacity of 550 tons. Needs amounted to 2,280 tons and imports thus amounted to 1,890 tons.

Under the 1965-1967 Three Year Plan, expansion representing an investment of 3 million DH was planned directed specifically towards increasing the production of household goods. Actual investment amounted only to 1,300,000 DH and considerable efforts will therefore be made within the framework of the present Plan in order to increase home production and reduce imports.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	2,350	2,700	350	3%
Exports	-	-	-	-
Total needs	2,350	2,700	350	3%
Production capacity	700	1,000	300	
Production	600	900	300	
Rate of utilisation of the production capacity	85%	90%	+ 5%	
Imports needed	1,750	1,800	+ 50	
Percentage of imports compared with needs	74%	67%	- 7%	

A 300 ton expansion of the production capacity of existing works is therefore planned.

Characteristics of the expansion project

Location : Mohammedia

Description: Natural extension of existing works - increase in capacity of 300 tons/year.

Sub-Sector 14-2

Aluminium Processing

This sector includes the following products:

Aluminium wrapping paper
Corrugated roof sheeting
Flat sheets (less than 5 mm)
Powder capsule tops
Tubing, wire, cables
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Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	2,350	2,700	350	3%
Exports	-	-	-	-
Total needs	2,350	2,700	350	3%
Production capacity	700	1,000	300	
Production	600	900	300	
Rate of utilisation of the production capacity	85%	90%	+ 5%	
Imports needed	1,750	1,800	+ 50	
Percentage of imports compared with needs	74%	67%	- 7%	

A 300 ton expansion of the production capacity of existing works is therefore planned.

Characteristics of the expansion project

Location : Mohammedia

Description: Natural extension of existing works - increase in capacity of 300 tons/year.

Investment:

Breakdown of expenditure

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Research and land	p.m.		
Buildings	81	19	100
Imported material	-	500	500
Local purchases	55	20	75
Sundry	13	12	25
Working capital	350	250	600
Total	499	801	1,300

Total investment: 1,300,000 DH, including 801,000 DH in foreign exchange.

Operation: breakdown of expenditure and receipts

Unit : 1,000 DH

	Receipts	Expenses
Receipts: 300 tons at 11 DH/Kg	3,300	
Intermediate consumption		2,522
Wages and salaries		455
Financial charges		28
Amortisation		65
Balance		230
Total	3,300	3,300

Jobs created:

		Wages
Senior grades and employees	15	155,000 DH
Skilled workers and specialised labourers	5 70	300,000 DH
Total	90	455,000 DH

Sub-sector 14-3

Taps and Fittings

This sector's needs in 1964 amounted to 7,790,000 DH and production capacity was 3,700,000 DH.

Production was 2,800,000 DH, resulting in imports amounting to 4,990,000 DH. This sector has shown quite an appreciable growth and needs therefore were estimated at 9,200,000 DH in 1968 and the annual growth rate at 5½%. Needs in 1973 therefore would amount to 12 million DH.

Present production capacity is 4 million DH showing a slight improvement (300,000 DH) over the Three Year Plan 1964-1967. In view of the needs for 1973 an extension will therefore have to be planned.

This will be fairly small in view of the varied range of products in this sector which renders large-scale imports necessary; the Moroccan industry could only provide for the low quantity manufacture of certain specialised products.

Estimates for the sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968-73	Annual rate of increase
Home needs	9,200	12,000	2,800	5.5%
Estimated exports	-	-	-	-
Total needs	9,200	12,000	2,800	
Production capacity	4,000	5,000	1,000	
Production	3,200	4,500	+ 1,300	
Rate of utilisation of the capacity	80%	90%	+ 10%	
Imports needed	6,000	7,500	+ 1,500	
Percentage of imports compared with needs	65%	62%	- 3%	

Extension of production capacity is therefore planned amounting to 1 million DH, raising total capacity to 5 million DH.

Characteristics of the extension project

Location: Ben Slimane

Description: Natural extension of the production capacity of the existing factory.

Increasing production capacity from 4,000,000 DH to 5,000,000 DH by extending the range of products.

Investment: Breakdown of expenditure.

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Research and land	p.m.		
Buildings	81	19	100
Imported equipment	-	520	520
Local purchases	60	20	80
Working capital	93	57	150
Total	234	616	850

Total investment: 850,000 DH, including 616,000 DH in foreign exchange.

Operation: Breakdown of receipts and expenditure.

Unit : 1,000 DH

	Receipts	Expenses
Receipts (increased production)	1,300	
Intermediate consumption		590
Wages and salaries		190
Financial charges		55
Amortisation		65
Balance		400
Total	1,300	1,300

Jobs created:

		Wages
Senior grades	3	40,000 DH
Specialised and skilled workers	27	150,000 DH
Total	30	190,000 DH

6

Sub-Sector 14-3

Ferrous metals and Foundry

The capacity of this sector in 1964 was 7,600 tons/year.

Needs were 7,900 tons and 5,400 tons were produced, resulting in imports amounting to 2,500 tons.

As shown in the table below the needs in 1968 were estimated at 9,600 tons and the annual growth rate at 5%. Needs therefore will increase to 12,100 tons in 1973.

Under the Three Year Plan production capacity increased from 7,600 to 10,200 tons.

In view of the continued need for certain imports this capacity is adequate until 1973. No extension is therefore planned under the present Plan.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	9,500	12,000	2,500	5%
Estimated exports	100	100	-	-
Total needs	9,600	12,100	2,500	-
Production capacity	10,200	10,200	0	
Production	6,000	7,600	1,600	
Rate of utilisation of the capacity	59%	74%	+ 15%	
Imports needed	3,600	4,500	+ 900	
Percentage of imports compared with needs	37%	37%	-	

Given the state of existing equipment, manufacturers should invest in modernising plant in order that costs may be reduced.

Sub-sector 14-3

Non-Ferrous Metals Foundry

This sector's capacity in 1964 was 750 ton/year.

Needs were 610 tons and 550 tons were produced, resulting in total imports of 60 tons.

This sector is stagnant and as shown in the table below, needs in 1968 were fixed at only 700 tons and the annual growth rate at 2.8%. Needs in 1973 will therefore be 800 tons. Although the production capacity is only 750 tons (unchanged since 1964) no extension of production capacity is planned; there are two reasons for this:

1) If needs increase as anticipated, capacity will still be adequate in 1973; if they are higher the existing factories can cope by increasing staff.

2) Certain imports will still be necessary.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	700	800	100	2.8%
Estimated exports	-	-	-	-
Total needs	700	800	100	2.8%
Production capacity	750	750	0	
Production	600	690	90	
Rate of utilisation of the capacity	80%	92%	+ 12%	
Imports needed	100	110	+ 10	
Percentage of imports compared with needs	14%	14%.		

Sub-sector 14-4

Sheet-iron works - Boiler works

Needs amounted to 3,700 tons in 1964 and were covered by local production of 3,100 tons (with a production capacity of 4,500 tons and imports of 600 tons). There were no exports.

The type of orders in this sector is very variable and some imports are needed.

As the growth is fairly strong however, (annual growth rate estimated at 5%), needs in 1968 amounting to 4,200 tons would rise to 5,350 tons in 1973. Production capacity will accordingly be extended by 1,000 tons.

Present production capacity is 5,000 tons (increase of 500 tons during the Three Year Plan 1964-67) and will be increased to 6,000 tons during the present Plan.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	4,200	5,350	1,150	5%
Exports	-	-	-	-
Total needs	4,200	5,350	1,150	5%
Production capacity	5,000	6,000	1,000	
Production	4,000	5,100	1,100	
Rate of utilisation of the capacity	80%	85%	+ 5%	
Imports needed	200	250	+ 50	
Percentage of imports compared with needs	4.7%	4.7%	-	

Extension is therefore planned of 1,000 tons/year under the Plan.

Characteristics of this extension

Location: Casablanca and other large centres in Morocco.

Description: Natural extension of the production capacity of the existing works.

Increase in the overall production capacity from 5,000 to 6,000 tons/year.

Investment planned: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Research and land	p.m.		
Buildings	81	19	100
Imported material	-	580	580
Local purchases	53	17	70
Working capital	33	37	70
Total	167	653	820

Total investment: 820,000 including 652,000 DH in foreign exchange.

Operation: breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
1,100 tons at 5.15 DH/Kg	5,665	
Intermediate consumption		4,110
Wages		420
Financial charges		400
Amortisation		70
Balance		665
Total	5,665	5,665

Jobs created:

		Wages
Senior grades and employees	6	80,000 DH
Qualified and specialised workers	65	340,000 DH
Total	72	420,000 DH

Sub-sector 14-5

Forging and Pressing

Needs in 1964 amounted to 2,030 tons and were covered by:

Imports : 1,400 tons
Local production : 630 tons

Local production derives at present partly from the craft-industry workshops and partly from the workshops incorporated in other factories. The aim is to build a factory with up-to-date plant with the latest techniques producing good quality materials at lower cost.

This production would involve mainly:

Agricultural hand tools (forks, spades, picks, etc..)
Workshop hand tools
Hammer works
Forging and pressing of mechanical parts and pieces for the agricultural industry, assembly of automobiles and lorries, fittings for electric lines, etc.

This new factory will considerably reduce imports although these will still be needed for special tools and parts.

Estimates of the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	2,000	2,500	500	4.5%
Exports	-	-	-	-
Total needs	2,000	2,500	500	4.5%
Production capacity	800	1,900	1,100	
Production	700	1,600	900	
Rate of utilisation of the production capacity	87%	84%	-	
Imports needed	1,300	900	- 400	
Percentage of imports compared with needs	65%	36%	- 29%	

Building a forging and pressing factory with a capacity of 1,900 tons/year is therefore envisaged under this Plan. This factory will be integrated in the AIA complex.

Characteristics of this project

Location: Casablanca (in the AIA premises)

Description: Building of a factory for:

Forging
Stamping
Welding
Moulding
Milling

with a capacity of 1,900 tons/year.

Investment planned:

Breakdown of expenditure

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Research and initial expenditure	150	150	300
Land	150	-	150
Buildings	486	114	600
Imported material	-	2,500	2,500
Local materials and purchases	225	75	300
Vehicles	43	57	100
Sundry	75	75	150
Working capital	1,300	1,100	2,400
Total	2,429	4,071	6,500

Total investment: 6,500,000 DH, including 4.071,000 in foreign exchange.

Operation: Breakdown of receipts and expenditure is as follows:

Unit : 1,000 DH

	Receipts	Expenses
1,600 tons at 6 DH/Kg	9,600	
Intermediate consumption		6,950
Wages and salaries		1,245
Financial charges		200
Amortisation		405
Balance		800
Total	9,600	9,600

Jobs created		Wages
Senior grades and employees	35	625,000 DH
Skilled workers	15)	
Labourers and specialised workers	105)	620,000 DH
Total	155	1,245,000 DH

Sub-sector 14-6

Internal Combustion Engines

Users of these engines are mainly:

Mobile-type engines

- manufacturers of lorries and buses
- manufacturers of agricultural tractors
- manufacturers of handling and lifting equipment

Fixed-type engin

- manufacture f generating sets and motor pump sets
- farmers: cere ills, oil crushers etc.

The most usual rat erefore that best suited for local manufacture, is between 10 and 90 h.p.

It is therefore preferable plan building an assembly factory for engines of this typ special and more high-powered engines still being imported.

In view of the size of the curr market the needs
in 1964 will be 2,780 its
in 1968 will be 3,000 its
in 1973 will be 3,300 nits
(annual growth rate of 2%)

The production capacity of the factory to be built will have to be approximately 2,000 units in order that production can cover approximately half the needs.

The Three Year Plan provided for building a factory with a capacity of 1,500 units costing 600,000 DH. This project was not built for non technical reasons and it is therefore desirable that this factory be built under the present Plan. As needs have increased it was considered necessary to raise capacity to 2,000 units costing 1,000,000 DH. Approximately 100 jobs would be created.

Estimates for the sector

Unit :

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	3,000	3,300	300	2%
Exports	0	0		
Total needs	3,000	3,300	300	2%
Production capacity	0	2,000	2,000	
Local production	0	1,600	1,600	
Rate of utilisation of the capacity	0	80%		
Imports needed	3,000	1,700	- 1,300	
Percentage of imports compared with needs	100%	51%	- 49%	

Sub-sector 14-7

Pumps

Production capacity was 220 tons/year in 1964. The Three Year Plan 1965-1967 considered it desirable to develop this essential activity for the country and an estimated investment of 1,500,000 DH was planned, 800,000 DH of which were actually achieved; production capacity at present has increased to 400 tons/year.

In view of the estimated needs in 1973 (1,300 tons) it was considered necessary further to increase this capacity of 400 tons, raising total annual capacity to 800 tons/year. A greater extension is not possible as the large flow pumps requiring thorough hydraulic study and also the special pumps (high pressure, injection etc..) will still have to be imported until the home market justifies production in sufficient quantities.

Estimates for the sector

The needs in 1964 were 877 tons/year and were covered by local production (165 tons for a production capacity of 220 tons plus imports of 712 tons). Demand in this sector is steadily growing and the needs in 1968 were estimated at 1,050 tons with an annual growth rate at 4½%.

Unit: ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	1,050	1,300	250	4.5%
Exports	-	-	-	-
Total needs	1,050	1,300	250	-
Production capacity	400	800	400	
Production	350	700	350	
Rate of utilisation of the production capacity	88%	88%	-	
Imports needed	700	600	- 100	
Percentage of imports compared with needs	66%	46%	- 20%	

Under the Plan therefore an increased production capacity of 400 tons/year is envisaged, raising the overall capacity to 800 tons/year.

Characteristics of this project

Location: Casablanca

Description: Extension of existing works - increasing the manufacturing range of pumps by assembly of spare parts either from overseas or from local production.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Research and land - buildings	p.m.		
Imported material	-	250	250
Other installations	38	12	50
Working capital	150	150	300
Total	188	412	600

Total investment: 600,000 DH, including 412,000 DH in foreign exchange.

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts: 350 tons at 12 DH/Kg	4,200	
Intermediate consumption		3,130
Wages and salaries		340
Financial charges		50
Amortisation		30
Balance		650
Total	4,200	4,200

Jobs created

		Wages
Senior grades	8	80,000 DH
Workers	52	260,000 DH
total	60	340,000 DH

Sub-sector 14-9

Railway Equipment

The needs in 1964 (5,300,000 DH were covered by:

Local production of 3,200,000 DH (wagons)
Imports of 2,100,000 DH (locomotives)

- passenger wagons and parts.

In view of the steady growth of this sector (annual growth rate 6½%), the needs for 1968 were estimated at 6,900,000 DH and 9,300,000 DH in 1973.

Production capacity has remained unchanged (6 million DH) since 1958 and in view of the needs in 1973, production capacity will have to be extended by 2 million DH, raising total capacity to 8 million DH. The Three Year Plan provided for an investment of 1,300,000 DH but solely for the maintenance of existing equipment and 2,000,000 DH were in fact invested.

Greater extension of capacity is not possible because a sufficient proportion of needs cannot be covered by local production (locomotives, certain spare parts etc..). Imports over the period of the Plan were estimated at approximately 30% of needs.

Estimates for the sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	6,900	9,300	2,400	6.5%
Exports	-	-	-	-
Total needs	6,900	9,300	2,400	6.5%
Production capacity	6,000	8,000	2,000	
production	5,000	6,700	1,700	
Rate of utilisation of the capacity	83%	83%	-	
Imports needed	1,900	2,600	+ 700	
Percentage of imports compared with needs	27%	27%	-	

A planned extension of production capacity of the existing factories is therefore envisaged under the Plan in order to raise total capacity to 8 million DH/year.

Characteristics of this project

Location: Mohammedia

Description: Extension of production capacity (renewal and maintenance of public and private goods wagons) of the existing factory.

Investment: Breakdown of expenses

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Research and land	p.m.		
Buildings	324	76	400
Imported material	-	600	600
Local purchases	60	20	80
Sundry	100	100	200
Working capital	172	228	400
Total	656	1,024	1,680

Total investment: 1,680,000 DH including 1,024,000 DH in foreign echange.

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	1,700	
Intermediate consumption		1,112
Wages and salaries		230
Financial charges		60
Amortisation		108
Balance		190
Total	1,700	1,700

Jobs created		Wages
Senior grades	7	80,000 DH
Workers	35	150,000 DH
Total	42	230,000 DH

Sub-sector 14-11

Farming equipment (excluding tractors)

Requirements in 1964 (2,700 tons) were covered by:

Local production	1,500 tons
Imports	1,200 tons

In 1964 the production capacity was 1,850 tons/year having increased by approximately 750 tons over the Five Year Plan 1960-64.

The Three Year Plan 1965-1967 had provided for an investment of 1,500,000 DH, but only 500,000 DH were realised; this however enabled production capacity to be increased to 2,400 tons/year. In view of the growth of the sector and above all in view of the present Plan's objectives in agriculture, the total needs were estimated at 4,000 tons in 1968 (home needs 3,500 tons) and the growth rate at 6½%. Home needs consequently will be 4,700 tons in 1973 (total needs 5,500 tons).

An extension of production capacity should therefore be planned in order to cover additional needs. This extension has been fixed at 1,100 tons/year, raising total capacity to 3,500 tons.

The increase in the production capacity and in total needs is therefore as follows:

Growth of the sector

	Capacity	Total needs
1958	1,100 T	1,940 T
1964	1,850 T	2,700 T
1968	2,400 T	4,000 T (including 500 tons of exports)
1973	3,500 T	5.500 T (including 800 tons of exports)

The farming equipment used at present and manufactured in Morocco either wholly or in part is as follows:

- disc ploughs and tractor driven mouldboard ploughs, breaker-ploughs etc.
- cover crops, harrows
- horse-drawn ploughs
- horse-drawn harrows
- ploughshares
- combined seed and fertiliser drills and manure spreaders
- combine harvesters
- sprayers, knapsack dusters
- trailers
- various farm machinery.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	3,500	4,700	1,200	6.5%
Estimated exports	500	800	300	
Total needs	4,000	5,500	1,500	
Production capacity	2,400	3,500	1,100	
National production	2,000	3,100	1,100	
Rate of utilisation of the capacity	83%	88%	+ 5%	
Imports needed	2,000	2,400	+ 400	
Percentage of imports compared with needs	50%	43%	- 7%	

Characteristics of the extension project

Location: Casablanca - Rabat

Description: Extension of the production capacity of the six existing enterprises; total capacity increasing from 2,400 to 3,5000 tons/year.

Investment: Breakdown of expenditure

Unit: 1.000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Buildings	81	19	100
Imported material	75	845	920
Local purchases	104	76	180
Working capital	620	880	1,500
Total	880	1,820	2,700

Total investment: 2,700,000 DH, including 1,820,000 DH in foreign exchange.

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
1,100 tons at 8 DH/Kg	8,800	
Intermediate consumption		6,605
Wages and salaries		770
Financial charges		190
Investment		115
Balance		1,120
Total	8,800	8,800

Jobs created		**Wages**
Senior grades and employees	14	270,000 DH
Specialised and skilled workers	100	500,000 DH
Total	114	770,000 DH

Sub-sector 14-11

Wheel tractors

It is rather difficult to forecast present needs in this sector in view of the modernisation policy to be carried out by the Government (being prepared).

The annual growth rate, however, estimated at 5% should be fairly realistic, the conclusion being that the production capacity in this sector is adequate for the duration of the Plan, taking into account possible imports as a result of agreements with certain overseas countries.

In 1963 production capacity was still zero. At present it is 1,200 units a year. The Three Year Plan 1965-1967 provided for an investment of some 1,500,000 DH of which 1,700,000 DH were realised, resulting in a production capacity of 1,200 units a year.

Estimates for the sector

by Unit:

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	800	1,040	240	5.5%
Exports	-	-	-	-
Total needs	800	1,040	240	5.5%
Production capacity	1,200	1,200	0	-
National production	800	1,040	+ 240	
Rate of utilisation of the capacity	66%	87%	+ 21%	
Imports needed	0	0	-	

There are therefore no plans to expand this sector under the present Plan.

Sub-sector 14-11

Caterpillar Tractors

The needs of this sector are less than those of the previous sector (wheel tractors).

Needs in 1964 were 211 units, 5 of which were imported.

The Plan's estimates are as follows:

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	250	325	75	5.5%
Exports	-	-	-	-
Total needs	250	325	75	5.5%
Production capacity	1,200	1,200	0	
National production	235	300	+ 65	
Rate of utilisation of the capacity	20%	25%	+ 5%	
Imports needed	15	25	+ 10	
Percentage of imports compared with needs	6%	7%	+ 1%	

Production capacity is therefore considerably in excess of needs and there are no plans to extend production under the present Plan. Certain imports however, will still be necessary (special tractors).

Sub-sector 14-13

General Mechanical Equipment

This sector comprises some 300 to 400 works of various sizes and with widely varying ranges of manufacture.

- non specialised construction workshops
- repair workshops
- iron smiths
- industrial metal coating
- zinking, galvanising, tinning, nickeling, chroming etc.
- tempering, cementing
- high temperature enamelling
- gear cloth
- modelling
- arms manufacture

This sector is generally very dependent on the other mechanical engineering branches.

The annual growth rate is estimated at 4%, taking these sectors into account.

Estimates for this sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	20,000	24,000	4,000	4%
Estimated exports	200	300	100	
Total needs	20,200	24,300	4,100	
Production capacity	15,000	20,000	5,000	
National production	12,000	17,000	5,000	
Rate of utilisation of the capacity	80%	85%	+ 5%	
Imports needed	8,200	7,300	- 900	
Percentages of imports compared with needs	40%	30%	- 10%	

In view of increased needs an extension of 5 million DH should be planned in order to maintain imports at a reasonable level. These however will still be needed for special products the requirements of which are too small to justify new tooling.

Characteristics of the extension project

Location: All industrial regions

Description: Natural extension of the existing workshops
- modernisation and increase in productivity
- extension of production capacity mainly by diversifying methods.

Production capacity to be increased by 5 million DH, rising from 15 to 20 million DH.

Planned production: increase from 12 to 17 million DH.

Investment: Breakdown of expenditure

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	3,000	3,000
Local purchases	290	210	500
Working capital			
Total	290	3,210	3,500

Total investment: 3,500,000 DH including 3,210,000 in foreign exchange

Financing - mainly self-financing

Operation: Breakdown of receipts and expenditure

Unit: 1,000 DH

	Receipts	Expenses
Receipts	5,000	
Intermediate consumption		2,265
Wages and Salaries		1,700
Financial charges		35
Amortisation		350
Balance		650
Total	5,000	5,000

Jobs created		Wages
Senior grades and employees	30	500,000 DH
Workers	170	1,200,000 DH
Total	200	1,700,000 DH

Sub-sector 14-16

Locksmithery and Ironwork

This sector comprises:

- Metal joinery and locksmithery and ironwork
- Roll locks and shop shutters
- Craft-industry locksmithery and ironwork
- Casement bolts, locks, handles etc.

60% of this production can be carried out by local manufacturers.

As however the craft-industries are largely involved, it is difficult to give exact capacity figures. The figures down below are minima as effective capacity may well be increased by means other than clear-cut investment.

In view of the estimated production capacity shown in the table below and the private needs, no investment need accordingly be planned immediately under the Plan to increase capacity.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	3,300	4,200	900	5%
Exports	-	-	-	-
Total needs	3,300	4,200	900	5%
Production capacity	3,200	3,200	-	
National production	2,000	2,550	+ 550	
Rate of utilisation of the capacity	62%	80%	+ 18%	
Imports needed	1,300	1,650	+ 350	
Percentage of imports compared with needs	39%	39%		

A growth rate of 5% was estimated, taking into account the activity in the building sector. Imports, which amount to 39% of needs, are mainly of high quality products which can be manufactured locally at a later date.

Sub-sector 14-17

Electric wires and cables

The main users in this sector are:

Public investors (PTT ONE)
Private investors
Electric construction
Building
Maintenance of installations

Taking into account the growth rate of these sectors the annual rate of increase was estimated at 4½%.

Needs accordingly will increase as follows

1964 : 15,144,000 DH
1968 : 18,250,000 DH (including 50,000 DH exports)
1973 : 22,900,000 DH (incldluing 100,000 DH exports)

Morocco's production capacity was:

in 1964 : 18,000,000 DH
in 1968 : 20,000,000 DH : end of Three Year Plan.

This increase in capacity was obtained by means of an investment of 2 million DH (1,800,000 planned).

1973 : 25,000,000 DH: planned extension of 5,000,000 DH of capacity under the present Plan.

Investment planned: 3,700,000 DH.

Estimates for this sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	18,200	22,800	4,600	4.5%
Estimated exports	50	100	50	-
Total needs	18,250	22,900	4,650	
Production capacity	20,000	25,000	5,000	
National Production	7,000	21,400	4,400	
Rate of utilisation of the capacity	85%	86%	+ 1%	
Imports needed	1,250	1,500	+ 250	
Percentage of imports compared with needs	7%	6.5%	- 0.5%	

A small volume of imports will still be needed of special cables.

Characteristics of the project for expanding production capacity

Location: Mohammedia

Description: Extension of production capacity of existing factory from 20 to 25 million DH, or a capacity expansion of 5,000,000 DH.

Production is planned to increase from 17 to 21,400,000 DH.

Investment: Breakdown of expenditure

Unit : 1,000 DH

Type of investment	Moroccan expenditure	Foreign exchange expenditure	Total
Buildings	243	57	300
Imported equipment	-	2,200	2,200
Local purchases	174	126	300
Vehicles	22	28	50
Sundry	75	75	150
Working capital	270	430	700
Total	784	2,916	3,700

Total investment: 3,700,000 DH including 2,916,000 DH in foreign exchange

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	4,400	
Intermediate consumption		3,090
Wages and salaries		500
Financial charges		50
Amortisation		290
Balance		470
Total	4,400	4,400

Jobs created

		Wages
Senior grades and employees	8	80,000 DH
Workers	50	420,000 DH
Total	58	500,000 DH

Sub-sector 14-18

Transformers

Production capacity in this sector was 2,590,000 DH in 1964. Under the 1965-1967 Three Year Plan investment of some 2,000,000 DH were provided for; capacity at the beginning of the present Plan therefore was 4,000,000 DH (1968).

Needs in 1964 were 4,039,000 DH and were estimated at 4,600,000 DH in 1968 (including 50,000 DH of exports).

With a growth rate estimated at 3%, total needs would amount to 5,300,000 DH in 1973. A capacity expansion of 1,000,000 DH should be planned immediately under this Plan to raise total capacity to 5,000,000 DH.

20% of needs will continue to be imported to cover the demand for special transformers, the quantities of which are too small for local manufacture. A production unit for small transformers, however, (for magnetic receivers) should be planned.

Estimates for the sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	4,550	5,250	700	3%
Estimated exports	50	50	-	
Total needs	4,600	5,300	700	-
Production capacity	4,000	5,000	1,000	
National production	3,400	4,000	+ 600	
Rate of utilisation of the capacity	85%	80%	- 5%	
Imports needed	1,200	1,300	+ 100	
Percentage of imports/needs	26%	24.5%	- 1.5%	

Characteristics

Location: Casablanca or Mohammedia

Description: Extension of the production capacity of existing factories from 4 to 5,000,000 DH, or an extension of 1,000,000 DH.

Production is planned to rise from 3,400,000 DH to 4,000,000 DH.

Investment: Breakdown of expenditure

Unit : 1,000 DH

Type of expenditure	Moroccan expenditure	Foreign exchange expenditure	Annual rate of increase
Buildings	95	25	120
Equipment	-	800	800
Local purchases	45	35	80
Working capital	45	15	60
Total	185	875	1,060

Total investment: 1,060,000 DH including 875,000 DH in foreign exchange

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	600	-
Intermediate consumption		249
Wages and salaries		140
Financial charges		40
Amortisation		94
Balance		77
Total	600	600

Jobs created:

		Wages
Senior grades and employees	6	70,000 DH
Workers	16	70,000 DH
Total	22	140,000 DH

Sub-sector 14-18

Electric motors

Needs in 1964 were 347 tons/year and were met entirely by imports.

The 1965-1967 Three Year Plan provided for investment of some 2 million DH (motors and transformers combined) but the proportion allocated for motors was not realised.

The present Plan therefore provides for the setting up of a motor factory. This factory would only manufacture the motors in greatest demand in Morocco (small and medium rating: 2 to 50 HP); special motors (very low rating for electric household equipment and over 50 HP) will continue to be imported.

The needs scheduled for 1973 are 525 tons. The factory should have a 300 ton capacity enabling it to produce approximately 275 tons, a little over half the needs.

The annual growth rate of 4½% is the target rate calculated between the years 1964-1967.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968-73	Annual rate of increase
Home needs	420	525	105	4.5%
Exports	-	-	-	-
Total needs	420	525	105	4.5%
Production capacity	-	300	300	
National production	-	275	275	
Rate of utilisation of the capacity	-	91%	+ 91%	
Imports needed	420	250	- 170	
Percentage of imports compared with needs	100%	47%	- 53%	

Characteristics of the project: Setting up a motor production unit.

Location: Casablanca region

Description:

Building an electric motor manufacturing plant for standard ratings, excluding special low power motors for household equipment and large powerful motors and other rarely used motors. Machined parts, coils, assembly and tests carried out in Morocco.

Investment: Breakdown of expenditure

Unit : 1,000 DH

Type of expenditure	Moroccan expenditure	Foreign exchange expenditure	Total
Research	15	15	30
Land	30	-	30
Buildings	162	38	200
Imported equipment	-	200	200
Local purchases	22	8	30
Vehicles	26	34	60
Sundry	20	20	40
Working capital	260	290	550
Total	535	605	1,140

Total investment: 1,140,000 DH including 605,000 DH in foreign exchange.

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	3,500	
Intermediate consumption		2,319
Wages and salaries		850
Financial charges		45
Amortisation		91
Balance		195
Total	3,500	3,500

Jobs created

		Wages
Senior grades	18	250,000 DH
Specialised and qualified workers	150	600,000 DH
Total	168	850,000 DH

Sub-sector 14-18

Electrical Equipment: Distribution panels, lighting, isolating switches, transmitter-receivers and various control accessories.

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In 1964 needs were in the region of 15,563,000 DH, of which 13,527,000 DH were imported. Production capacity was 3,300,000 DH and has remained unchanged up to the present.

As the growth rate was estimated at 4% (based on effective growth between 1964-1966), needs would amount to 21,600,000 DH in 1973.

The present Plan should accordingly provide for the extension of existing factories from 3,300,000 to 5,400,000 DH. Greater expansion is not possible as 80% of needs correspond to equipment making up completely new factories where the equipment is imported. This equipment generally includes electric control apparatus.

Estimates for the sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	18,000	21,600	3,600	4%
Exports	-	-	-	-
Total needs	18,000	21,600	3,600	4%
Production capacity	3,300	5,400	2,100	
Production	2,500	4,600	2,100	
Rate of utilisation of the capacity	76%	85%	+ 9%	
Imports needed	15,500	17,000	+ 1,500	
Percentage of imports/needs	86%	79%	- 7%	

Characteristics of the extension project

Location:

Description:

Extension of existing factories.
Increase in capacity: 2,100,000 DH.
Activities: distribution panels, control panels, supply boxes, control equipment and accessories, all fluid.

Total production capacity after extension: 5,400,000 DH.

Investment planned: Breakdown of expenditure.

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	600	600
Local purchases	5	55	130
Vehicles	10	15	25
Sundry	22	23	45
Working capital	130	120	250
Total	237	813	1,050

Total investment: 1,050,000 DH including 813,000 DH in foreign exchange

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	2,100	
Intermediate consumption		1,443
Wages and salaries		350
Financial charges		40
Amortisation		82
Balance		185
Total	2,100	2,100

Jobs created

		Wages
Senior grades and employees	12	170,000 DH
Specialised workers	40	180,000 DH
Total	52	350,000 DH

Sub-sector 14-21

Metal Packaging

Under this heading are grouped the following products:

tins (fruit, fish, meat, vegetables, paint and polish)
metal stoppers and capsules (breweries and sparkling drinks)
metal casks
sheet metal stamping.

Needs were calculated up to the beginning of 1968 as follows:

	1958	1963	1964	1968
Home needs	45,400,000 DH -	- 33,000 Ton.	75,790,000DH 27,840 T	- 28,000 T.
Exports	- -	- -	1,260,000DH 460 T	- 0
Total needs	45,400,000 DH -	- 33,000 Ton.	77,050,000DH 28,300 T	- 28,000 T.
Production capacity	-	33,000 T.	33,000 T	37,000 T.
National production	44,500,000 DH -	- 32,700 T.	76,100,000DH 28,100 T	- 28,000 T.
Imports needed	900,000 DH -	- 300 T.	980,000DH 200 T	0

The table above shows that needs are fairly stagnant; they were therefore estimated at 28,000 tons in 1968.

Production capacity was also increased from 33,000 to 37,000 tons under the 1965-1967 Three Year Plan (investment of 4,200,000 DH against 3,000,000 DH planned) and the annual growth rate at 2½% under the present Plan. Estimated needs in 1973 will therefore be easily covered by existing capacity.

There is thus no need to plan extension under the present plan.

The annual growth rate of this sector depends largely on that of the preserves sector which is the main client. As this sector at the moment is slack the growth rate of 2½% estimated for metal packaging should be fairly accurate.

Even if this rate should be higher, however, production capacity of 37,000 tons would suffice as it would accept a growth rate of even 5%.

Estimates of the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	28,000	31,500	3,500	2.5%
Exports	-	-	-	-
Total needs	28,000	31,500	3,500	2.5%
Production capacity	37,000	37,000	-	-
Production	28,000	31,500	3,500	-
Rate of utilisation of production capacity	75%	84%	+ 9%	
Imports	0	0	0	

This table shows that national production will entirely cover needs.

No exports are planned and these have steadily dropped over the last few years.

KINGDOM OF MOROCCO

PRIME MINISTER

SECRETARIAT OF STATE FOR PLANNING AND THE
TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 7

INDUSTRY

INDUSTRIAL PROJECTS

Part Two

MARCH 1968

INDUSTRY

THE INDUSTRIAL PROJECTS

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Sub-sector 15-1

Lorry Manufacture

Home needs in 1964 were 1,909 units and 150 units were exported. Total needs of 2,059 items were covered almost entirely by home production (2,047).

Production capacity was 5,950 units/Year.

The growth rate envisaged under the Three Year Plan (need for 6,000 units in 1968) proved to be far too high.

The present Plan is accordingly providing for home needs of 2,500 lorries, exporting 200 units in 1968.

The annual growth rate was estimated at 10%.

Total needs would therefore amount to 4,200 lorries by 1973 (including 200 for export).

Present production capacity is 8,000 lorries/year (investment under the Three Year Plan 1965-1967).

No extensions are therefore necessary under the present Plan.

Estimates for the sector

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	2,500	4,000	1,500	10%
Estimated exports	200	200	-	-
Total needs	2,700	4,200	1,500	
Production capacity	8,000	8,000	-	
Production	2,700	4,200	1,500	
Rate of utilisation of the capacity	34%	53%	+ 19%	
Imports needed	0	0	-	-

Sub-sector 15-1

Special Vehicles (Jeeps)

Needs in 1964 were 373 units/year and were entirely met by home production. In view of the annual growth rate estimated at 4% needs will amount to 520 units in 1973.

Production capacity was already 1,100 units a year in 1964 and no extension is therefore needed under the present Plan.

Estimates for the sector.

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	430	520	90	4%
Exports	-	-	-	
Total needs	430	520	90	4%
Production capacity	1,100	1,100	0	
Production	430	520	+ 90	
Rate of utilisation of the capacity	39%	47%	+ 8%	
Imports needed	0	0		

Sub-sector 15-2

Tourist Coach Manufacture

The characteristics of this sector up to the present [illegible] have been the following:

By unit

	1958	1960	1963	1964
Needs	11,146	12,764	9,927	6,640
Production capacity	0	0	11,000	11,000
Home production	0	0	6,276	4,300
Imports	11,146	12,764	3,651	2,340

There was a considerable recession in this sector up to 1964. There has been a certain recovery since then, however, which enabled the annual growth rate to be estimated at 3½%.

The estimate of needs therefore under the present Plan was 10,000 units in 1968 and 12,000 units in 1973.

During the Five Year Plan 1960-1964 an assembly factory was built with acapacity of 11,000 units/year. (one team working 10 hours).

The Three Year Plan provided for investment of some 5,000,000 DH but only 700,000 DH were used.

On the basis of three teams working 8 hours production capacity is accordingly now estimated at 30,000 units/year.

There is therefore no extension envisaged under the present Plan.

Estimates of the sector

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual increase
Home needs	10,000	12,000	2,000	3.5%
Exports	0	0	0	-
Total needs	10,000	12,000	2,000	3.5%
Production capacity	30,000 (3 teams)	30,000 (3 teams)	-	-
Production	10,000 (1 team)	12,000 (2 teams)	2,000	-
Rate of utilisation of the capacity	33%	40%	7%	-
Imports	-	-	-	-

Sub-sector 15-3

Coachbuilding

Needs in 1964 amounted to 3,000,000 DH. In 1968 these were estimated at 3,600,000 DH with an annual growth rate of 4½%; this is maintained under the present Plan.

Needs will amount to 4,500,000 DH in 1973.

Production capacity has already been 9,000,000 DH since 1964 and no extension is therefore planned in this sector.

Estimates for the sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	3,600	4,500	900	4.5%
Exports	-	-	-	-
Total needs	3,600	4,500	900	
Production capacity	9,000	9,000	-	
Production	3,600	4,500	+ 900	
Rate of utilisation of the capacity	40%	50%	+ 10%	
Imports	-	-	-	

Sub-sector 15-5

Motor Cycles and Motor Scooters

The characteristics of this sector are as follows:

By unit

	1958	1960	1963	1964
Needs	-	-	31,938	23,250
Production capacity	-	-	25,000	25,000
Home production	-	-	20,251	20,000
Imports	7,744	11,692	11,687	3,250

After a heavy drop in demand between 1963-1964 there was a strong recovery with an annual growth rate of 8½%, a figure which has been retained under the present Plan.

Needs will amount therefore to 33,000 units in 1968 and 48,000 in 1973.

Under the Five Year Plan 1960-1964 three factories were established with a total capacity of 25,000 units.

The Three Year Plan provided for an investment of 1,500,000 DH and 1,400,000 DH were realised.

Present production capacity is therefore 35,000 unit/year.

In view of the needs in 1973 (48,000 units) it was considered necessary to plan an extension of production capacity to 52,000 units (increase of 17,000 units/year) which will need an investment of around 2,400,000 DH (including extending the cycle production capacity).

Estimates for the sector

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	32,000	48,000	16,000	8.5%
Exports	-	-	-	
Total needs	32,000	48,000	16,000	8.5%
Production capacity	35,000	52,000	17,000	
National production	30,000	46,000	16,000	
Rate of utilisation of the capacity	86%	88%	+ 2%	
Imports needed	2,000	2,000	-	
% Imports/needs	6%	4%	- 2%	

Certain imports will still be needed (special motor bikes, the quantity of which is too small for a production series to be economic).

Characteristics of the extension project

This project has not been studied separately but in conjunction with the cycle extension project. The characteristics are therefore given hereafter in the study of this sector.

Sub-sector 15-3

Cycles

The characteristics of this sector are as follows:

By unit

	1958	1960	1963	1964
Needs			20,591	21,368
Production capacity			26,000	26,000
National production			19,970	21,000
Imports	1,549	989	621	268

Growth of this sector is lower at 3% but is more regular. The annual growth rate of 3% is maintained for the period 1968-1973 under the present Plan. Needs will amount therefore to 25,000 units in 1968 and 29,000 in 1973. Under the 1960-1964 Five Year Plan a factory was set up with a capacity of 25,000 units.

The Three Year Plan raised this capacity to 28,000 units (part of the investment of 1,400,000 DH).

In view of the needs in 1973 (29,000 units) it was considered necessary to plan an extension of production capacity to 32,000 units (increase of 4,000 units/year).

A part of the investment of 2,400,000 DH, the characteristics of which are given below, will therefore be used to carry out this extension.

Estimates for the sector

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	25,000	29,000	4,000	3%
Exports	-	-	-	
Total needs	25,000	29,000	4,000	3%
Production capacity	28,000	32,000	4,000	
National production	25,000	29,000	4,000	
Rate of utilisation of the capacity	89%	91%	2%	
Imports	-	-		

Imports will therefore be completely eliminated.

Characteristics of the project for extending the motor cycle and cycle production capacities.

Location:

Extension of the production capacity of the series production and assembly workshops of the existing factories.

By unit:

	Present capacity	Planned capacity	Extension
Motorcycles	25,000	52,000	27,000
Cycles	25,000	29,000	4,000

Greater integration of locally manufactured parts.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	1,000	1,000
Local purchases	300	100	400
Various	100	100	200
Working capital	180	620	800
Total	580	1,820	2,400

Total investment: 2,400,000 DH including
1,820,000 DH in foreign exchange

Operation : Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts		
motorcycles 16,000 x 500	8,000	
cycles 4,000 x 150	600	
Intermediate consumption	-	7,290
Wages and salaries	-	266
Financial charges		144
Amortisation		180
Balance		720
Total	8,600	8,600

Jobs created

		Wages
Senior grades and employees	5	66,000 DH
Workers	45	200,000 DH
Total	50	266,000 DH

Sub-sector 16-1

Refrigerators

Demand amounted in 1965 to 5,325 units, 9,378 in 1963, 8,237 in 1960 and 10,228 in 1958.

This drop in demand was due to the gradual departure of foreigners and to many second hand refrigerators coming on the market.

After 1965 there was first a certain stabilisation in demand, followed by a fairly considerable recovery: 4½% annual growth rate. Needs in 1968 were accordingly estimated at 6,400 units and those in 1973 at 8,000.

Production capacity which was 4,750 units/year was increased under the Three Year Plan to 6,000 (investment of 250,000 DH against 800,000 DH envisaged under the Plan).

In view of needs for 1973 it was considered necessary to raise this capacity to 8,000 units/year (investment of 450,000 DH)

It was not considered necessary further to increase this capacity as some imports will still be needed. These are required as the manufacturing range of existing factories does not include refrigerators with a capacity of over 170 litres.

Up to now, however, part of this programme has been neglected. Oil or butane-propane absorption refrigerators: there would seem to be a sufficient market to establish a production unit. This type of refrigerator in fact could be used in many places where connexion to existing electricity supplies will not be possible for a long time in view of the distances involved. Such a unit moreover would require very little investment if the factory is integrated with a sheet metal factory such as a metal furniture factory (200,000 DH investment for an annual production capacity of some 3 to 4,000 units).

This problem will therefore be studied under the present Plan.

Estimates for the sector:

Compressor type refrigerators

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	6,400	8,000	1,600	4.5%
Exports	-	-	-	-
Total needs	6,400	8,000	1,600	4.5%
Production capacity	6,000	7,500	1,500	
National production	5,000	6,300	1,300	
Rate of utilisation of the capacity	83%	84%	+ 1%	
Imports needed	1,400	1,700	+ 300	
% Imports/needs	22%	21%	- 1%	

Should an absorption refrigerator production unit be built the characteristics of this sector would be estimated in 1973 as follows:

Home needs	10,000
Production capacity	10,500
National production	9,500

Characteristics of the project for extending the capacity of compressor type refrigerator production.

Location: Casablanca

Description:

Extension of existing enterprises:
Production capacity increased from 6,000 to 7,500 units/year.

Investment: Breakdown of expenditure

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	150	150
Local purchases	72	28	100
Sundry	25	25	50
Working capital	75	75	150
Total	172	278	450

Total investment: 450,000 DH including 278,000 in foreign exchange.

Operation: Breakdown of receipts and expenditure.

Unit : 1,000 DH

	Receipts	Expenses
Receipts : 1,300 units	1,000	
Intermediate consumption		652
Wages and salaries		220
Financial charges		18
Amortisation		30
Balance		80
Total	1,000	1,000

Jobs created:		Wages
Senior grades and employees	4	40,000 DH
Workers	36	180,000 DH
Total	40	220,000 DH

Characteristics of the project for setting up a refrigerator unit (oil or butane-propane).

Location: Casablanca

Production capacity: 3,000 units/year

Investment: 200,000 DH on the assumption that this factory is integrated with another thin sheet metal factory.

Jobs created	
senior grades	2
workers	20
Total	22

Sub-sector 16-2

Sewing machines

The sewing machine market is in full expansion with demand increasing steadily.

By unit:

	1958	1959	1960	1963	1964
Needs	6,757	7,856	8,358	18,181	18,845

Until 1966 these needs were entirely met by imports.

The 1965-1967 Three Year Plan provided for an investment of 1,200,000 DH which were fully realised, resulting in a present capacity of 12,000 units/year.

Further extension is underway and will be operational at the end of 1968. It will raise production capacity to 18,000 units/year, or an increase of 6,000 units/year. The investment is approximately 1,800,000 DH. This capacity only covers half the needs, 50% of which will therefore continue to be imported as it is not immediately possible to envisage the local manufacture of certain types of machines.

Estimates for the sector

By unit:

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	22,000	30,800	8,800	7%
Exports	-	-	-	
Total needs	22,000	30,800	8,800	-
Production capacity	12,000	18,000	6,000	
National production	10,000	15,300	5,300	
Rate of utilisation of the capacity	83%	85%	- 2%	
Imports needed	12,000	15,500	+3,500	
% Imports/needs	54%	50%	- 4%	

Sub-sector 16-3

Household Metal Goods

This sector includes the following articles:

- household articles in untreated metal, galvanised metal, enamelled metal, copper, stainless steel, and aluminium;
- wire sponges and scales;
- iron tins;
- stoves;
- various aluminium and tin articles;
- mechanical kitchen equipment;
- knives - spoons;
- razors and blades
- scissors - cutlery
- slide fastenings
- metal abrasives

The growth of demand is a function of increased household consumption. These consumer goods represent important export possibilities and the sector is steadily developing and becoming equipped; a fair proportion in fact of these articles is already exported (approximately 15%).

Production capacity, which was 2,275 tons/year in 1964 was increased to 2,800 tons under the Three Year Plan 1965/67.

An investment of 500,000 DH was planned, 1,100,000 DH in fact being spent.

Estimates of the sector

By unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	2,230	2,680	450	4%
Estimated exports	500	500	-	
Total needs	2,730	3,180	450	
Production capacity	2,800	3,300	+ 500	
National production	2,400	2,780	+ 380	
Rate of utilisation of the capacity	86%	84%	- 2%	
Imports needed	330	400	+ 70	
% Imports/needs	12%	12%	-	

This table shows that:

1) Some imports will still be necessary; these will mainly be the more complex articles with a low quantity output, the local manufacture of which would not be economic.

2) The present Plan provides for an increase in production capacity of 500 tons.

Characteristics of the extension project

Location: Casablanca, Rabat, Mohammedia

Description:

Natural extension of the existing enterprises. Overall production increased from 2,400 to 2,780 tons by increasing production capacity from 2,800 to 3,300 tons/year.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	400	400
Local purchases	112	38	150
Sundry	25	25	50
Working capital	130	220	350
Total	267	683	950

Total investment: 950,000 DH including 683,000 DH in foreign exchange.

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
380 tons at an average price of 9/DH/Kg.	3,420	
Intermediate consumption		2,590
Wages and salaries		342
Financial charges		48
Amortisation		60
Balance		380
Total	3,420	3,420

Jobs created

		Wages
Senior grades and employees	10	100,000 DH
Workers	70	242,000 DH
Total	80	342,000 DH

Sub-sector 16-4

Metal furniture

This sector comprises the following articles:

Office furniture and various accessories
Medico-surgical equipment
Metal beds
Metal seating
Dressers and kitchen furniture
Ornaments

Up to now imports were mainly of surgical fittings, the other articles being manufactured locally. The 1965/1967 Three Year Plan provided for no increase in production capacities (only a maintenance investment of 150,000 DH).

However, as the table below shows, production was increased from 2,300 to 2,500 tons/year resulting in a considerable drop in imports.

The present Plan provides for the complete elimination of imports; this will require an investment of some 1,000,000 DH.

Present characteristics of the sector

Unit : ton

	Production capacity	National production	Imports	Total
1963	2,300	1,098	482	1,580
1964	2,300	1,390	185	1,575
1967	2,500	-	-	

Estimates for the sector

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	2,000	2,550	550	5%
Estimated exports	150	150	-	
Total needs	2,150	2,700	550	
Production capacity	2,500	3,200	700	
National production	2,150	2,700	550	
Rate of utilisation of the capacity	86%	84%	- 2%	
Imports	0	0		

Production capacity will thus increase by 700 tons/year. The annual growth rate was estimated at 5%.

Characteristics of the extension project

Location: Region of Casablanca

Description

Extension of production capacity from 2,500 tons/year to 3,200 tons/year of the existing factory, in order to cover the entire needs (2,700 tons in 1973).

Expanding the production range.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	350	350
Local purchases	75	25	100
Sundry	25	25	50
Working capital	235	265	500
Total	335	665	1,000

Total investment: 1,000,000 DH, including 665,000 in foreign exchange

Operation Unit: 1,000 DH

	Receipts	Expenses
550 tons at 10 DH/Kg	5,500	
Intermediate consumption		3,885
Wages and salaries		840
Financial charges		25
Amortisation		50
Balance		700
Total	5,500	5,500

Jobs created		**Wages**
Senior grades and employees	25	240,000 DH
Workers	125	600,000 DH
Total	150	840,000 DH

Sub-sector 16-5

Domestic heating equipment

Cookers, oil and gas stoves.

Gas and fuel radiators.

Up to 1964 the entire needs were covered by imports. The Three Year Plan provided for an investment of some 2,000,000 DH, all of which was utilised. Practically all this equipment, therefore is now locally manufactured but a small volume of imports will still be needed (special or luxury articles). Customs protection for this sector is around 25%.

Estimates for the sector

Unit : Ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	1,100	1,430	330	5.5%
Exports	-	-	-	-
Total needs	1,100	1,430	330	5.5%
Production capacity	2,000	2,000	-	-
National production	1,000	1,350	350	-
Rate of utilisation of the capacity	50%	68%	+ 18%	
Imports	100	80	- 20	
% Imports/needs	9%	6%	- 3%	

The projects carried out under the Three Year Plan 1965-1967 (three projects) will therefore cover needs well beyond 1973. There is therefore no extension envisaged under the present Plan.

Sub-sector 16-6

Radios

Up to 1962 almost all radios were imported. Under the 1960-1964 Five Year Plan several production units were set up (investment of 310,000 DH) resulting in 1963 in a production capacity of 21,400 units.

The 1964-1967 Three Year Plan provided for an investment of some 2,700,000 DH (including the television sector). 2,500,000 DH were in fact invested resulting in a present production capacity of 250,000 units/year.

Needs are increasing steadily as the table below shows.

Present characteristics of the sector (approximate figures)

By unit

	1958	1963	1964	1967
Needs	62,000	99,700	143,700	-
Production capacity	-	21,400	21,400	250,000
National production	3,000	4,700	10,700	-
Imports	59,000	95,000	133,000	-

It was therefore not thought excessive to fix needs at 210,000 units in 1968 with an annual growth rate of 7½%

Estimates for the sector

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	210,000	300,000	90,000	7.5%
Exports				
Total needs	210,000	300,000	90,000	7.5%
Production capacity	250,000	250,000		
Production	150,000	210,000	+ 60,000	
Rate of utilisation of the capacity	60%	84%	+ 24%	
Imports needed	60,000	90,000	+ 30,000	
% imports/needs	29%	30%	+ 1%	

A certain volume of imports will still be needed of special or luxury goods, the quantity of which is not sufficient to justify an assembly plant being established. Theoretically, in view of the above figures no extension is therefore envisaged under the present Plan.

However an extension project of 40,000 units was under study and may be built if the actual growth rate should be more than the estimated rate.

Characteristics of this project

Location: Casablanca

Description

Natural extension of the two existing factories. Increase in production capacity by 40,000 units.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	300	300
Local purchases	75	25	100
Sundry	50	50	100
Working capital	360	640	1,000
Total	485	1,015	1,500

Total investment: 1,500,000 DH including 1,015,000 DH in foreign exchange

Being an assembly industry working capital is very high as, apart from the units manufactured, a considerable stock of spare parts is needed.

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	7,800	
Intermediate consumption		6 010
Wages and salaries		630
Financial charges		100
Amortisation		60
Balance		1,000
Total	7,800	7,800

Jobs created		Wages
Senior grades and employees	7	130,000 DH
Workers	60	500,000 DH
total	67	630,000 DH

Sub-sector 16-6

Television sets

This sector has grown very rapidly since 1963 which was th year which saw the start of local production as shown in the table below.

Present characteristics of the sector

This industry began under the Five Year Plan 1960-1964; production capacity was 11,200 units/year and 80% of needs were covered in 1965 by local output. With the rapidly growing demand the Three Year Plan 1965-1967 provided for an investment of 2,700,000 DH (together with radios) 2,500,000 DH of which was in fact spent, increasing production capacity from 11,200 to 40,000 units/year at present.

PAST GROWTH

By unit

	1958	1963	1964	1965	1966	1967
Needs	-	8,257	10,343	11,000	21,000	-
Production capacity	-	11,200	11,200	11,200	11,200	40,000
National production	-	3,600	8,256	-	-	-
Imports	3,000	4,657	2,087	-	-	-

Estimates for the sector

By unit

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	30,000	35,000	5,000	3%
Exports		4,000	4,000	
Total needs	30,000	39,000	9,000	
Production capacity	40,000	40,000	-	
National production	30,000	39,000	9,000	
Rate of utilisation of the capacity	75%	97%	+22%	
Imports	-	-	-	

This table shows that:

- the annual growth rate was estimated at 3% at which rate present production capacity is sufficient. However, as this rate may be exceeded an extension project for 10,000 units/year was under study and may be implemented if required.

- Imports will be completely eliminated.

Characteristics of the extension project

Location: Casablanca - Tangiers

Description:

Natural extension of the existing enterprises - increase in production capacity by 10,000 units/year.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Buildings	81	19	100
Imported equipment	-	330	330
Local purchases	52	18	70
Sundry	50	50	100
Working capital	505	895	1,400
Total	688	1,312	2,000

Total investment: 2,000,000 DH, including 1,321,000 DH in foreign exchange.

Working capital is high because, apart from stocks of finished articles, extensive stocks of spare parts have to be maintained.

Operation : Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts		
9,000 units at 900 DH	8,100	
Intermediate consumption		6,790
Wages and salaries		316
Financial charges		50
Amortisation		43
Balance		901
Total	8,100	8,100

Jobs created:

		Wages
Senior grades and employees	7	116,000 DH
Workers	30	200,000 DH
Total	37	316,000 DH

Sub-sector 16-7

Small Electric household equipment

After slowing down due to the drop in the European population, this sector is again expanding and the annual growth rate has been estimated at 5½%. At present all units are imported. Under the present Plan an assembly factory will be built which will meet almost half Morocco's requirements.

Needs amounted to 315 tons in 1964, or, in value, 2,435,000 DH; these were covered entirely by imports.

Estimates for the sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	3,000	3,900	900	5.5%
Exports	-	-	-	-
Total needs	3,000	3,900	900	5.5%
Production capacity	0	2,400	2,400	
National production	0	2,000	2,000	
Rate of utilisation of the capacity	-	83%	+ 83%	
Imports needed	3,000	1,900	-1,100	
% imports/needs	100%	48%	- 52%	

At present it is not possible to provide for a higher production capacity as this has to be confined to quantity-production equipment (fans, coffee grinders, food mixers, beaters, liquidisers, etc...).

This output is worthwhile and should grow steadily; it should find one or several investors during the present Plan. It also has the advantage of stimulating upsteam industries (spare parts, plastics, etc.)

Characteristics of the project:

Location: Casablanca regions

Description:

Setting up a factory manufacturing small household equipment as follows:

- fans
- coffee grinders
- food mixers
- beaters
- liquidisers, etc.

production capacity: 2,400,000 DH
planned production: 2,000,000 DH.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Research	6	6	12
Land	30	-	30
Buildings	81	19	100
Imported equipment	-	250	250
Local purchases	30	10	40
Special tooling	27	83	110
Vehicles	13	17	30
Sundry	14	14	28
Working capital	152	248	400
Total	353	647	1,000

Total investment: 1,000,000 DH, including 647,000 DH in foreign exchange

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	2,000	
Intermediate consumption		1,360
Wages and salaries		390
Financial charges		32
Amortisation		68
Balance		150
Total	2,000	2,000

Jobs created:

		Wages
Senior grades and employees	12	150,000 DH
Workers	58	240,000 DH
Total	70	390,000 DH

Sub-sector 16-8

Electric batteries

This sector comprises:

- Liquid batteries (telephone installations)
- Dry batteries for portable lamps
- Other dry batteries
- Various batteries

In 1964 needs were 9,570,000 DH and were covered by:

National production	:	2,800,000 DH
Imports	:	6,770,000 DH
Production capacity was		4,350,000 DH

No investment was envisaged under the Three Year Plan 1965-1967. 800,000 DH was in fact invested, however, increasin production capacity to 5,500,000 DH at present.

Estimates for the sector

Unit : 1,000DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual ra of increa
Home needs	9,500	12,300	2,800	5.5%
Exports	-	-	-	-
Total needs	9,500	12,300	2,800	5.5%
Production capacity	5,500	16,000	11,500	
National production	3,500	11,000	+ 7,500	
Rate of utilisation of the capacity	64%	69%	+ 5%	
Imports needed	6,000	1,[illegible]00	- 4,700	
% imports/needs	63%	11%	- 52%	

There are two projects at present concerning manufacture of dry batteries. One will be built in 1968 and the other is at present under study. These two projects will raise total production to 16,000,000 DH a year. It will therefore be possible to meet practically all needs but certain imports will still be necessary for special batteries (liquid batteries, concentration batteries, inert batteries).

Characteristics of the extension project:

Location: Casablanca or Tangiers

Description:

- Extension of the production capacity of existing factory or building a new one
- Capacity raised from 5,500,000 DH to 16,000,000 DH
- Production rising from 3,500,000 DH to 11,000,000 DH
- Modernisation of processes.

Investment: Breakdown of expenditure

Unit . 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Studies and initial expenditure	200	100	300
Land	100	-	100
Buildings	283	67	350
Imported equipment	-	2,500	2,500
Local purchases	570	190	760
Vehicles	21	29	50
Sundry	20	20	40
Working capital	360	640	1,000
Total	1,554	3,546	5,100

Total investment: 5,100,000 DH including
3,546,000 DH in foreign exchange.

Operation: Breakdown of expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	7,500	
Intermediate consumption		5,470
Wages and salaries		1,200
Financial charges		200
Amortisation		397
Balance		233
Total	7,500	7,500

Jobs created:

		Wages
Senior grades and employees	33	400,000 DH
Workers	220	800,000 DH
Total	253	1,200,000 DH

Sub-sector 16-8

Accumulators

In 1964 needs amounted to 2,000 tons (7,700,000 DH) and were covered by:

Home production	1 140 tons
Imports	560 tons

Production capacity was 2,000 tons/year and has remained unchanged to date.

Estimates for the sector

(ton)

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increas
Home needs	2,320	2,780	460	4%
Exports	-	-	-	-
Total needs	2,320	2,780	460	4%
Production capacity	2,000	2,500	500	
National Production	1,820	2,250	+ 430	
Rate of utilisation of the capacity	91%	90%	- 1%	
Imports needed	500	530	+ 30	
% imports/needs	22%	19%	- 3%	

In view of the requirements in 1973 of 2,780 tons it was considered necessary to increase production capacity by 500 tons in order to maintain imports at the same level compared with requirements (20%).

These imports will still be needed as they cover requireme for special accumulators which it would be uneconomic to manufacture in Morocco. The estimated growth rate was calcula as a function of the growth of the car and lorry assembly industries.

Characteristics of the extension project

Location: Region of Casablanca

Description:

Natural extension of production capacity of the existing factories (3).

Production capacity increased from 2,000 to 2,500 tons/yea
Planned production increasing from 1,820 to 2,250. tons.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	450	450
Local purchases	97	33	130
Sundry	10	10	20
Working capital	120	80	200
Total	227	573	800

Total investment: 800,000 DH including
573,000 DH in foreign exchange

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts		
360 tons at 3,890 DH/ton	1,400	
Intermediate consumption		1,020
Wages and salaries		138
Financial charges		32
Amortisation		60
Balance		150
Total	1,400	1,400

Jobs created	Wages
30 qualified and specialised workers	138,000 DH

Sub-sector 16-11

Industrial jewellery

The characteristics of this sector in previous years are as follows:

Unit : 1,000 DH

	1958	1964
Needs	4,745	4,258
Production capacity	-	5,800
National production	4,195	4,200
Imports	550	58

The drop in demand therefore is considerable. There has been a slight recovery, however, and total requirements were fixed in 1968 at 4,850,000 DH. The annual growth rate was estimated at 3%. This seems accurate in view of the present state of the market. Imports have been reduced to the minimum possible.

Estimates for the sector

Unit : 1,000 DH

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	4,750	5,450	700	3%
Estimated exports	100	100	-	-
Total needs	4,850	5,550	700	-
Production capacity	5,800	6,500	700	
National production	4,800	5,500	+ 700	
Rate of utilisation of the capacity	83%	84%	+ 1%	
Imports needed	50	50	-	
% imports/needs	1%	1%	-	

In view of the needs for 1973 (5,500,000 DH) a small expansion of this sector was planned under the present Plan (700,000 DH).

Characteristics of the extension project

Location: Region of Casablanca

Description:

Natural extension of existing enterprises.
Production capacity raised from 5,800,000 DH to 6,500,000 DH.
Production planned at 4,800,000 DH in 1968, rising to 5,500,000 DH in 1973.

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Imported equipment	-	350	350
Local purchases	120	30	150
Working capital	46	34	80
Total	166	414	580

Total invesment 580,000 DH including
414,000 DH in foreign exchange

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	700	
Intermediate consumption		355
Wages and salaries		175
Financial charges		20
Amortisation		50
Balance		100
Total	700	700

Jobs created		Wages
Senior grades and employees	2	25,000 DH
Workers	20	150,000 DH
Total	22	175,000 DH

Sub-sector 17-4

Spinning industry (for worsteds)

This sub-sector comprises the following productions:

- thread for hosiery wear
thread for hand knitted goods
- thread for craft-industry blankets
- thread for lightweight worsted drapery, synthetic fibres and staple fibre

This sector grew rapidly under the Three Year Plan 1964-1967 which had scheduled an investment of 8 million DH (for spinning and wearing). In fact 32,500,000 DH were invested in spinning and worsted type weaving, production capacity rising from 1,500 tons/year in 1964 to 2,500 tons in 1965 and 6,000 tons/year in 1967. Output also rose steadily as the table below shows.

Unit ; Ton

	1960	1961	1962	1963	1964	1965	1967
Production capacity	-	-	-	-	1,500	2,590	6,000
Production	509	592	800	870	935	955	3,000

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs (no exports)	4,150	5,120	790	4.3%
Production capacity	6,000	6,000	-	
Production	4,100	5,070	+ 970	
Rate of utilisation of the capacity	68%	85%	+ 17%	
Imports	50	50	-	
% imports/needs	1.2%	0.95%	-	

In view of the achievements of the Three Year Plan 1965-196 present production capacity (6,000 tons) seems adequate for needs up till 1973. No extension is therefore envisaged under the present Plan.

The imports of 50 tons are made up of the products needed to ensure diversification of production particularly for novelty goods.

Sub-sector 17-4

Card-Spinning

Only industrial production is dealt with in this section as accurate figures for the craft-industry are not available.

Thus in the table showing the characteristics of this sector the difference between the total needs and resources shown represents the needs covered by craft industry production.

Estimated annual figures for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs (Total as there are no exports)	9,500	11,000	1,500	3%
Production capacity	11,250	11,250	-	
National Industrial production	8,100	9,380	+ 1,280	
Rate of utilisation of the capacity	72%	83%	+ 11%	
Imports	50	50	-	
% Imports/needs	0.5%	0.45%	-	

The annual growth rate of home needs was estimated at 3% which more or less follows the population growth.

Extension of the production capacity of this sector has been very rapid over the past years.

Capacity in 1958 was very low (less than 1,000 tons/year; it rose to 10,000 tons in 1965 and then to 11,250 tons in 1967.. The Three Year Plan invested 5,500,000 DH in spinning and weaving (spinning card cycle).

Morocco's industrial production has steadily increased:

Unit : ton

1960	1961	1962	1963	1964	1965	1968
750	1,300	1,700	2,160	3,800	5,836	8,100

Present industrial production capacity thus seems adequate supported as it is by the craft-industry output.

No extension is therefore envisaged under the present Plan.

This type of spinning involves the following manufactures:

- craft-industry goods; blankets, djellabas, carpets
- heavy drapery, lightweight cloth, blankets and duffle
- furnishing materials
- certain fulled knitted goods.

Sub-sector 17-4

Heavy drapery and blankets

This sector has grown considerably. Industrial production capacity increased as follows:

1964	2,000 tons/year
1965	3,400 tons/year

The major part of this sector's needs is provided by the craft-industries, the production figures of which are impossible to calculate accurately.

Thus the difference between the quantities shown for needs and those for industrial production represents the craft-industry production.

Industrial production has grown as follows:

Unit : ton

	1960	1961	1962	1963	1964	1965
Industrial production	560	550	638	725	950	1,231

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs (Total as there are no exports)	7,300	8,300	1,000	2.7%
Production capacity	3,400	3,400	-	
National Industrial production	1,500	2,200	700	
Rate of utilisation of the capacity	44%	65%	+ 21%	
Imports	80	50	- 30	
% Imports/needs	1.1	0.6	- 0.5	

Present industrial production capacity (3,400 tons/year) seems adequate up to 1973 in view of the extent of the craft-industries' production.

No extension is therefore envisaged of this sector under the present Plan.

Sub-sector 17-4

Furnishing materials

This sector has grown very rapidly. Production capacity rose from 3,030 tons/year in 1965 to 4,350 tons in 1967. (Part of the 5,500,000 DH investment under the Three Year Plan 1965-1967 was utilised). Production increased steadily as follows:

Unit : ton

	1960	1961	1962	1963	1964	1965
National Production	300	450	800	1,000	1,500	1,920

Estimates for the sector:

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	2,450	3,120	670	8%
Exports	20	20	-	
Total needs	2,470	3,140	670	
Production capacity	4,350	4,350	-	
National production	2,420	3,090	670	
Rate of utilisation of the capacity	56%	71%	+ 15%	
Imports	50	50	-	
% imports/needs	2%	1.6%	-	

- the annual growth rate was estimated at 5%, based on the increase in previous years.

- Some imports will still be needed to ensure a diversification of production, particularly for novelty goods.

- In view of the achievements of the Three Year Plan, the annual production capacity (4,350 tons) is adequate to cover needs up till 1973.

No extension is therefore envisaged under the present Plan.

Sub-sector 17-5

Cotton Spinning and Weaving

This sector has grown considerably over past years, as the table below shows:

Unit : ton

	1964	1965	1967
Spinning			
Production capacity	9,500	11,855	19,300
Production	8,000	10,260	-
Weaving			
Production capacity	7,000	11,000	16,620
Production	6,400	7,265	-

Extension of production capacities under the Five Year Plan 1965-1967 was as follows:

7,445 tons for spinning
and 5,620 tons for weaving.

To obtain this expansion the Three Year Plan had provided for an investment of 89,000,000 DH which was utilised in full.

Spinning and weaving are dealt with separately.

Sub-sector 17-5

I - Cotton Spinning

Production capacity and output developed as follows:

Unit : ton

	1960	1961	1962	1963	1964	1965	1967
Production capacity					9,500	11,855	19,300
Production	4,200	3,600	4,800	6,500	8,000	10,260	-

Production capacity thus rose from 11,855 to 19,300 tons under the Three Year Plan 1965-1967.

The estimates for the sector are shown in the table below:

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	21,600	26,500	4,900	4.50%
Exports	-	450	450	
Total needs	21,600	26,950	5,350	
Production capacity	19,300	31,590	12,290	
National production	17,910	26,850	8,940	
Rate of utilisation of the capacity	93%	85%	- 8%	
Imports needed	3,600	100	- 3,590	
% imports/needs	17%	0.4%	- 16.6%	

In view of the requirements in 1973 of 26,950 tons (including 450 tons of exports) the present Plan envisages three new projects with a total production capacity of 8,940 tons:

- a fully integrated factory at FEZ
  50,000 spindles
  3,600 twisting spindles

- a fully integrated factory at KENITRA
  12,688 spindles

- a factory at Tetouan, partially integrated
  13,200 spindles

thus a total of 79,488 spindles.

Total production capacity of this sector will therefore reach 31,590 tons in 1973 and no extension will thus be needed for some years after the Plan.

A small volume of imports of spun cotton will still be needed in 1973 as not all the metric numbers used by weavers will be produced by the Moroccan spinning-mills.

Investment planned:

This will be for the partially and fully integrated factorie and not for the individual spinning-mills:

Factory at Fez	111,208,000 DH
Factory at Kenitra	25,403,000 DH
Factory at Tetouan	29,971,000 DH
Total	166,582,000 DH

Jobs created		Wages
Senior grades and employees	297	5,255,000 DH
Workers	2,524	12,676,000 DH
Total	2,821	17,931,000 DH

The main characteristics of these projects are given at the end of the section under cotton spinning.

Sub-sector 17-5

II - Cotton weaving

Production capacity and output developed as follows:

Unit : ton

	1960	1961	1962	1963	1964	1965	1967
Production capacity	-	-	-	-	7,000	11,000	16,620
Production	3,150	2,700	3,600	5,500	6,400	7,265	-

Capacity was extended under the Three Year Plan by 5,620 tons.

The estimates for this sector are shown in the table below:

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs (no exports)	17,800	21,500	3,700	4.15%
Production capacity	16,620	24,575	7,955	
Production	14,710	19,500	4,790	
Rate of utilisation of the production capacity	88%	79%	- 9%	
Imports	3,090	2,000	- 1,090	
% imports/needs	17%	9%	- 8%	

In view of needs in 1973 of 21,500 tons, the present Plan envisages three new projects with a total production capacity of 7,955 tons:

- a fully integrated factory at Fez : (COTEF)
  960 automatic looms
- a fully integrated factory at Kenitra: (MAGRETTEX)
  300 automatic looms
- a partially integrated factory at Tetouan:
  384 automatic looms

thus a total of 1,644 looms.

Total capacity in this sector will therefore reach 24,575 tons in 1973 and no extension will be necessary for some years after the Plan.

Whatever the situation of the Moroccan weaving-mills, 10% of needs will probably still be imported in 1973: specialised and fancy goods, etc..

As shown in the chapter on cotton spinning, total investment for these two cotton spinning and weaving sectors will amount to 166,582,000 DH.

2,821 jobs will be created, representing 17,931,000 DH in wages and salaries.

Characteristics of the production capacity extension projects (spinning and weaving)

1) COTEF project

Location : Fez

Description:

Setting up an integrated textile plant, the functions of which will be as follows:

Spinning
Weaving
Dyeing
Printing
Finishing

- It would use: 50,000 spindles
  3,600 twisting spindles
  960 automatic looms

Production would thus amount to 40,000,000 metres of various materials:

- cotton poplin (90 cm)
- dyed linen
- staple fibre/cotton dyed linen
- staple fibre/cotton printed linen
- staple fibre/cotton dyed serge
- cotton striped twill

432 tons of sewing thread

Turnover would thus amount to 77,144,000 DH.

Investment: breakdown of expenditure:

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Studies and initial expenditure	4,185	2,875	7,060
Land, Infra-structure	3,220	380	3,600
- Buildings	10,530	2,470	13,000
- Production equipment	-	52,125	52,125
- Additional equipment	-	7,580	7,580
- Assembly	1,560	3,735	5,295
- Interim interest	-	1,665	1,665
- Customs clearance and duty	2,389	-	2,389
- Stock and working capital	10,674	7,820	18,494
Total	32,558	78,650	111,208

Total investment: 111,208,000 DH including
78,650,000 DH in foreign exchange

Financing

- Beginning of investment : 1968
- Start of operations : 1970
- Normal production reached in 197

Financing will be provided by:

- share capital :	24,000,000 DH
- buyer's credit:	55,000,000 DH
- equipment grant	11,925,000 DH
- short term loan (local banks) for financing taxation and working capital:	20,283,000 DH
Total	111,208,000 DH

Operation:

Breakdown of receipts and expenses:

Unit : 1,000 DH

	Receipts	Expenses
Receipts	77,114	
Intermediate consumption		50,790
Wages and salaries		12,100
Financial charges		1,110
Amortisation		6,575
Balance		6,539
Total	77,114	77,114

Jobs created		Wages
Senior grades and employees :	192	3,640,000 DH
Workers	1,605	8,460,000 DH
Total	1,797	12,100,000 DH

2) MAGRETEX Project

Location : Kenitra

Description

Setting up an integrated textile plant to manufacture various cotton and staple-fibre thread and materials:

Operations: spinning
weaving
printing
dyeing

It would use:
12,688 spindles
300 automatic looms

Production would thus amount to:
11,900,000 metres of material (2,000 tons)
1,130 tons of printing
4,400,000 metres of material dyed.

Turnover would amount to: 23,873,000 DH

Investment

Breakdown of expenditure

Unit: 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Studies and initial expenditure	360	360	720
Land	300	-	300
Buildings	2,829	563	3,392
Production equipment	-	13,858	13,858
Auxiliary equipment	-	559	559
Local purchases	1,069	631	1,700
Working capital	2,714	2,160	4,874
Total	7,272	18,131	25,403

Total investment: 25,403,000 DH including
18,131,000 DH in foreign exchange

Financing

This would be provided by:

- share capital	4,000,000 DH
- equipment grant	3,100,000 DH
- current accounts	4,403,000 DH

- suppliers' credits : 13,900,000 DH

The equipment grant would be prefinanced by a short-term loan .

Operation: breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	23,873	
Intermediate consumption		12,708
Wages and salaries		4,001
Financial charges		500
Amortisation		1,786
Balance		4,878
Total	23,873	23,873

Jobs created		Wages
Senior grades and employees :	62	1,105,000 DH
Workers	540	2,896,000 DH
Total	602	4,001,000 DH

3) **Project**: **Tetouan Textiles**

Location : Tetouan

Description:

Building a partially integrated textile plant to manufacture unbleached cotton and staple-fibre materials.

- It would use:

  13,200 spindles
  384 automatic looms

- Production would thus amount to:

  13,360,000 metres of standard cretonne type popular materials (1,700 tons)

- Turnover would amount to 14,883,000 DH

Investment: Breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Studies and initial expenditure	594	430	1,024
Land	310	-	310
Infra-structure	1,815	-	1,815
Buildings	5,350	1,255	6,605
Production equipment	-	12,270	12,270
Auxiliary equipment	955	1,598	2,553
Working capital	3,344	2,050	5,394
Total	12,368	17,603	29,971

Total investment : 29,971,000 DH including
17,603,000 DH in foreign exchange

Financing

This would be provided by :

- share capital	14,500,000 DH
- equipment grant	3,471,000 DH
- current accounts	12,000,000 DH
Total	29,971,000 DH

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	14,883	
Intermediate consumption		7,475
Wages and salaries		1,830
Financial charges		570
Amortisation		1,802
Balance		3,206
Total	14,883	14,883

Jobs created		Wages
Senior grades and employees	43	510,000 DH
Workers	379	1,320,000 DH
Total	422	1,830,000 DH

Sub-sector 17-5

Artificial Fibres

This sub-sector includes the manufacture of textile fibres, either continuous (rayon) or discontinuous (staple-fibre).

At present all these fibres are imported, together with a certain quantity of artificial fibre materials.

These imports (fibres + materials), which meet requirements, are as follows:

Imports of artificial fibres

Unit : ton

	1960	1961	1962	1963	1964	196
Staple fibre	2,238	2,652	4,222	6,327	8,322	[illegible]
Staple fibre thread	742	523	656	978	610	[illegible]
Materials	7,125	7,050	6,293	7,259	6,226	[illegible]
TOTAL staple fibres	10,105	10,225	11,171	14.564	15,158	[illegible]
Rayon thread	1,758	2,109	2,493	2,638	3,045	[illegible]
Materials	961	926	1,312	1,169	1,257	[illegible]
TOTAL rayon	2,719	3,035	3,805	3,807	4,302	[illegible]
TOTAL artificial fibres	12,824	13,260	14,976	18,371	19,460	[illegible]

This table gives rise to the following observations:

1) The tonnage of imported raw materials (staple fibre and rayon thread) has grown considerably while the tonnage of manufactured products (staple fibre thread and materials, rayon materials) dropped considerably as a result of the start of operations of Morocco's spinning (stable fibre) and weaving (staple fibre and rayon) mills.

2) There was a certain slowdown in demand in 1965 but it has now recovered and the estimates for this sector are as follows (expressed solely in fibres).

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs (anticipated operation)	18,500	22,500	4,000	4%
Production capacity	0	25,000	25,000	
National production	0	22,500	22,500	
Rate of utilisation of the capacity	-	90%	-	
Imports	18,500	0	- 18,500	
% Imports/needs	100%	-	-	

The annual growth rate of 4% takes into account the growth rate of the staple fibre weaving (4½%) and continuous fibre weaving (rayon) (3.6%) sectors.

The present Plan therefore provides for the setting up of a staple fibre and rayon (from alfa) manufacturing plant. This project was investigated by a German engineering firm who came to the conclusion that the project was feasible and in the national interest.

In view of requirements and the alfa supply possibilities, this plant's production capacity was estimated at 25,000 tons of staple fibre and rayon a year, which would enable imports to be eliminated around 1973.

The setting up of this plant, apart from its value in substituting local artificial fibre production for imports, would be of considerable social importance as it would provide work for some 5,000 seasonal workers (harvesting alfa) and would better utilise a raw material which could only be fully cultivated if this plant is built.

Characteristics of the project

Location: The exact site is still to be determined as the building of this plant causes problems in connexion with the water supplies and drainage of waste water. The site at Berguent has been provisionally adopted subject to further studies being carried out.

Description

The setting up of a plant for the manufacture of artificial fibres (continuous: rayon, discontinuous: staple fibre) from alfa. This plant would comprise two integrated factories.

a) Transformation of alfa into viscose cellulose paste sent in liquid form direct to the factory manufacturing artificial fibres.

Processing capacity : 80 to 90,000 tons of dry alfa
Production capacity : 30,000 tons of viscose cellulose past.

b) Transformation of viscose cellulose past into artificial fibres.

Processing capacity : 30,000 tons of viscose cellulose past
Production capacity : 25,000 tons of artificial fibres.

Investment

For the two factories the total investment is estimated at 185,000,000 DH, including 105,390,000 in foreign exchange.

Operation

Total receipts	73,620,000 DH
Total expenditure	62,600,000 DH
Balance	11,020,000 DH

Jobs created

		Wages
Senior grades and employees	61	1,566,000 DH
Permanent workers	450	2,200,000 DH
Total	511	3,766,000 DH
Seasonal workers (harvest) 5,000		7 months 6,000,000 DH

Characteristics of the viscose cellulose paste project manufactured from 80,000 tons of alfa.

Investment : Breakdown of expenditure

1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Land	100	-	100
Main buildings	3,490	810	4,300
Auxiliary buildings	1,800	420	2,220
Basic equipment	-	19,700	19,700
Auxiliary equipment	3,005	5,795	8,800
Processing of waste water	1,670	330	2,000
Sundry	6,710	970	7,680
Working capital	2,625	375	3,000
Total	19,400	28,400	47,800

Total investment: 47,800,000 DH including
28,400,000 DH in foreign exchange.

Operation: breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
30,000 tons of viscose cellulose	24,000	
Intermediate consumption		15,974
Wages and salaries		1,596
Financial charges		1,700
Amortisation		2,600
Balance		2,130
Total	24,000	24,000

Permanent jobs created	
Senior grades and employees	30
Workers	150
Total	180

Characteristics of the project for manufacturing 25,000 tons of artificial fibres from 30,000 tons of viscose cellulose.

Investment : breakdown of expenditure

Unit : 1,000 DH

	Moroccan expenditure	Foreign exchange expenditure	Total
Land	150	-	150
Infra-structure	3,650	850	4,500
Studies and initial expenditure	2,500	2,500	5,000
Buildings	6,260	1,470	7,730
Production equipment	-	44,460	44,460
Auxiliary equipment	-	4,000	4,000
Thermal Power Station	-	7,500	7,500
Local purchases	12,800	3,200	16,000
Sundry and contingency - assembly	15,970	8,830	24,800
Working capital	15,060	3,800	18,860
Total	58,390	86,610	133,000

Total investment: 133,000,000 DH including
76,610,000 DH in foreign exchange

Operation: Breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
25,000 tons of artificial fibres	73,620	
Intermediate consumption		47,910
Wages and salaries		2,170
Financial charges		4,400
Amortisation		10,250
Balance		8,890
Total	73,620	73,620

Jobs created

Senior grades and employees	31
Workers	300
Total	331

Sub-sector 17-5

Continuous fibre weaving (rayon nylon)

This sector includes manufacture of:

- clothing materials
- furnishing material ;
- embroidery support material

This sector has grown considerably over the past years, as the table below shows:

Unit : ton

	1960	1961	1962	1963	1964	1965	1967
Needs	2,400	2,875	3,836	3,756	4,296	3,210	4,325
Production capacity	-	-	-	-	3,400	3,400	5,500
Production	1,410	1,686	2,012	2,120	2,290	2,370	2,970
Imports	990	1,189	1,824	1,633	2,006	840	1,355

Under the 1965-1967 Three Year Plan production capacity increased by some 70%. 54,000 DH were invested (against 18,000,000 DH planned). Moroccan production should now cover all needs. However 400 tons of imports are planned to ensure diversification of production.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs (total, not exports)	4,410	5,220	810	3.6%
Production capacity	5,500	5,500	-	
National production	4,000	4,820	820	
% of utilisation of the production capacity	73%	88%	+ 15%	
Imports needed	410	400	- 10	
% imports/needs	9%	8%	- 1%	

Sub-sector 17-5

Light drapery materials

As everywhere in the textile industry, this sector made considerable progress over the past years as the table below shows:

Unit : ton

	1964	1965	1968
Production capacity	1,500	2,450	5,000
Production	320	906	3,250

Estimates for the sector:

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs (total, no exports)	3,350	4,150	800	4.7%
Production capacity	5,000	5,000	-	
National production	3,250	4,050	800	
Rate of utilisation of capacity	65%	81%	+ 16%	
Imports	100	100	-	
% imports/needs	3%	2.4%	- 0.6%	

- Imports of around 100 tons of material are planned to ensure supplies to tailors and luxury shops.

- As better productivity from the existing equipment is possible the present production capacity (5,000 tons) can suffice until 1973. No extension is therefore envisaged under the present Plan.

Sub-sector 17-6

Sisal Industry

This sector's output is intended for the production of:

- binder twine
- packing string
- cord

Business in this sector is slack and the annual growth rate is low, being estimated at 3%.

Estimates for the sector:

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs				
Total exports	3,500	4,000	500	3%
Production capacity	7,000	7,000	-	-
National production	3,350	3,850	500	
Rate of utilisation of the capacity	48%	55%	+ 7%	
Imports	150	150		

Imports are of certain specialised goods.

As production capacity is twice the requirements, no extension will therefore be needed for some time.

Sub-sector 17-6

Jute Industry

The output of this sector is intended for the following productions:

- all types of bags
- jute cloth
- twine

The raw materials used are as follows:

- imported raw jute
- Moroccan "teal" fibres.

By 1973 demand in this sector should increase considerably as a result of the building of sugar factories and the importation of loose unrefined sugar after 1969. This will deprive the market of some 3,000,000 bags which can be re-used. One factory is being built and an existing one is being extended; this sector's production capacity will thus increase from 7,500 to 10,000 tons at the end of 1968 or the beginning of 1969. An investment of 3,300,000 DH was made on these two projects under the Three Year Plan 1965-1967 although no investment has been planned.

In the table below this increase in capacity has been shown after 1968 and no extension is therefore envisaged under the present Plan.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs Total (no exports)	6,300	8,000	1,700	5%
Production capacity National production Rate of utilisation of the capacity	7,500 6,250 83%	10,000 7,950 80%	2,500 1,700 - 3%	
Imports	50	50	-	

Chemical Products

1 - Sulphuric Acid

Since the start of operation of the Safi plant, the production of sulphuric acid increased considerably. This plant, however, only produces acid for its own use.

Imports

	1963	1964	1965	1966
Value (in 1,000 DH)	120	45	16	22

Imports thus dropped steadily and were finally eliminated. In 1966 Morocco began exporting (16 tons in 1966 and 85 tons for the 9 first months of 1967).

Estimates for 1973

Tons

	1968	1973	Increase 1968/73
Home consumption	380,000	475,000	95,000
Exports	-	-	
Production	380,000	475,000	95,000
Production capacity	500,000	500,000	
Personnel	250	280	

The installed capacity is very adequate to meet the increase in demand. On the other hand the price per ton is not high enough to justify large-scale exports.

2 - Compressed gases

These are mainly oxygen, dissolved acetylene, carbon dioxide and argon.

Local production was 1,750,000 m3 in 1964, or approximately 6 million DH in turnover.

Imports during the same year amounted to 1,740 tons or a value of 2,100,000 DH.

Imports

	1963	1964	1965	1966
Value (in 1,000 DH)	2,120	2,100	2,380	3,180
Quantity (tons)	1,940	1,740	1,530	2,280

While imports were mainly constant in volume, the unit price rose by 12% between 1963 and 1966.

Estimates for 1973

	1968	1973	Increase 1968-73
Home consumption (1,000 m3)	2,800	3,560	760
Imports (1,000 DH)	600	700	-
Home production (1,000 m3)	2,200	2,860	-
Production capacity (1,000 m3)	3,300	3,300	-
Personnel	300	300	

Installed production capacity should meet increased needs and no investment is therefore needed. Up to now, in spite of its surplus capacity, the industry has never been able to export any products: the installed capacity in 1964 was already 3,300,000 m3.

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[illegible]	1964	1965
[illegible]	[illegible]	[illegible]

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Sub-sector 22-1

Chlorine and Acid

This sector has grown steadily in conjunction with the "soda" sector in respect both of needs and production, as the table below shows.

Unit : ton

	1960	1961	1962	1963	1964	1967
National production	2,220	2,950	3,240	3,750	4,300	-
Needs	2,284	3,139	3,477	4,079	4,903	
Imports	64	189	237	329	603	
Production capacity					4,600	7,000

On the basis of the above figures needs were estimated at 6,500 tons in 1968. The annual growth rate was not calculated as growth will be quite exceptional as a result of the various projects which may be carried out under the present Plan.

This increase in needs is as follows:

1) Project for the extension of the Moroccan Cellulose Factory: 4,500 additional tons.

2) Project for building an artificial fibre factory from alfa: 1,800 tons of chlorine.

3) The P.V.C. project, the specifications of which are given in the "soda" sector, will need 14,500 tons of chlorine for a production of 10,000 tons of polyvinyl chloride.

Needs for 1973 were accordingly estimated at 27,500 tons. To cover these needs total production capacity will be increased to 30,000 tons/year by means of the following two projects (already mentioned in the "soda" sector).

1 - Extension of the Moroccan Cellulose Factory: the capacity of the factory producing soda and chlorine by electrolysis of Na Ce will be increased by 4,500 tons/year.

2 - The P.V.C. project: the factory producing soda and chlorine by electrolysis from Na Cl will have a production capacity of 14,500 tons/year.

3 - The firm of COELMA could increase its chlorine production capacity to 5,000 tons/year.

This would result in a total production capacity of 30,000 tons/year and production of 27,500 tons.

Estimates for the sector

Unit : ton

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	6,500	27,500	21,000	-
Production capacity	7,000	30,000	23,000	
National production	6,500	27,500	21,000	
Rate of utilisation of the capacity	93%	92%	- 1%	
Imports	0	0	-	

Sub-sector 22-1

Soda

This sector has grown steadily in respect both of needs and national production as shown in the table below:

Unit : ton

	1960	1961	1962	1963	1964	1967
National production	2,200	2,900	3,200	3,700	4,250	-
Needs	6,322	7,012	7,222	9,576	8,906	-
Imports	4,122	4,112	4,022	5,876	4,656	-
Production capacity	-	-	-	-	4,500	8,000

Based on the above figures needs were estimated at 11,000 tons in 1968. The annual growth rate under the present Plan had to be revised to take into account of:

1 - The extension project for the Moroccan Cellulose Factory which would require 5,000 tons of additional soda.

2 - the project for building an artificial fibre factory, from alfa, which would consume 3,000 tons.

3 - Export estimates amounting to 8,000 tons.

Total needs therefore will increase from 11,000 tons in 1968 to 28,000 tons in 1973, including 20,000 tons for home needs, or an annual growth rate of 12½%.

Furthermore in order to eliminate imports, production capacity should be increased appreciably, rising to at least 30,000 tons in 1973.

These figures are summarised in the table below:

Estimates for the sector

	Situation 1968	Situation 1973	Increase 1968/73	Annual rate of increase
Home needs	11,000	20,000	9,000	12.5
Exports	-	8,000	8,000	
Total needs	11,000	28,000	17,000	
Production capacity	8,000	30,000	22,000	
National production	7,500	28,000	17,000	
Rate of utilisation of the capacity	94%	93%	- 1%	
Imports	3,500	-	- 3,500	
% imports/needs	32%	-	- 32%	

In 1973 Morocco should not only be manufacturing its entire soda requirements but should also be exporting 8,000 tons.

This increase in production capacity from 8,000 to 30,000 tons/year would be obtained by the following two distinct projects:

1 - Extending the Moroccan Cellulose Factory. This factory which manufactures cellulose paste (for paper) from eucalyptus wood has planned an extension of production capacity of 35,000 tons to 109,500 tons of paste, or an additional consumption of 4,000 tons of soda.

This factory has its own laboratory for preparing soda by electrolysis. This laboratory's production capacity of soda is scheduled to be increased by 4,500 tons/year, needing an investment of some 1,000,000 DH.

The detailed characteristics of this project "extension of *the Moroccan Cellulose Factory*" will be given in the sub-sector on paper and carton.

2 - Setting up a factory to manufacture polyvinyl chloride (PVC) with caustic soda as a secondary product.

Production capacity for soda : 17,500 tons
Production : 14,000 tons

Building these two projects would thus raise total production capacity of soda to:

Capacity in 1968	8,000 tons
"Cellulose Factory" extension	4,500 tons
PVC Project	17,500 tons
Total	30,000 tons

Characteristics of the P.V.C. project

Location : Kenitra

Description:

Building a plant for the manufacture of:

- Polyvinyl chloride
- Caustic soda
- Sodium sulphide
- Bicalcic phosphate

Production would be based on ethylene (5,400 tons) obtained by cracking 12,500 tons of propane.

Ethylene is introduced to chlorine to produce dichloro-ethane. Hydrochloric acid and polyvinyl chloride are obtained from cracking the dichloro-ethane which is then polymerised: in addition there will be:

- a unit for concentration of caustic soda
- a unit for the production of sodium sulphid

Investment: Breakdown of expenditure

Unit : 1.000 DH

	Moroccan expenditure	Foreign Exchange expenditure	Total
Land	75	-	75
Building and Civil Engineering	5,075	1,855	6,930
Production equipment	-	38,300	38,300
Engineering	-	4,135	4,135
Sundry	-	3,340	3,340
Assembly	2,745	2,740	5,485
Working capital	5,040	1,260	6,300
Contingencies	765	4,720	5,485
Total	13,700	56,350	70,050

Total investment: 70,050,000 including
56,350,000 in foreign exchange

Operation: breakdown of receipts and expenditure

Unit : 1,000 DH

	Receipts	Expenses
Receipts	30,272	
Intermediate consumption		15,395
Wages and salaries		3,544
Financial charges		3,000
Amortisation		4,000
Patents		400
Balance		3,933
Total	30,272	30,272

Jobs created:		Wages
Senior grades and employees	61	1,273,000 DH
Workers	181	2,271,000 DH
Total	242	3,544,000 DH

Sub-sector 22-3

Fertilisers

1 - Consumption

During the 1960-1965 period fertiliser consumption increased by 3% in total, consumption being mainly of phosphate fertilisers.

(in tons of fertiliser elements)

	Nitrogen	Phosphate	Posassium
1960	7,790	30,320	5,990
1961	9,800	21,830	7,150
1963	14,470	23,000	8,200
1964	13,320	23,900	7,430
1965	12,960	26,620	7,730

The table below shows the growth in the consumption of fertilisers resulting from the agricultural development programme.

(in thousands of fertiliser units)

	N.	P.	K.
1968	17,360	17,030	2,020
1969	20,360	19,930	2,320
1970	23,360	22,830	2,620
1971	26,560	25,930	2,920
1972	29,760	29,030	3,220

In other words increases of 70% nitrogen and phosphate and 60% for potassium respectively.

Imports

Fertiliser imports remained constant throughout the 1960-1965 period but rose sharply in 1966 (20%) as a result of the "fertiliser operation" and of the Government's agricultural development policy.

In tons

	1962	1963	1964	1965	1966
Natural fertiliser	1.2	0.4	-	-	-
Nitrogen fertiliser	48.7	48.6	48.6	48.3	68.5
Potassium fertiliser	-	-	-	-	-
Phosphate fertiliser	-	-	-	-	-
Others	15.2	21.6	17.0	14.0	8.2

Supply

At present there are nine undertakings manufacturing or processing fertilisers, the largest of which is is Maroc-Chimie (200,000 tons/year of super triple, 250,000 tons/year of ammonium phosphate and 14,000 tons/year of phosphoric acid). Total production capacity amounts to 650,000 tons.

As Maroc-Chimie however had not yet reached full capacity, production did not exceed 400,000 tons in 1966 (Maroc-Chimie less than 220,000 tons).

The of Maroc-Chimie were more than 110,000 tons.

Growth of the sector

Another plant will be set up at Mechra Ben Abou (1972) or alternatively a new section will be added to the Safi plant.

Mechra Ben Abou Plant

Promoter

O.C.P., possibly in association with private interests.

Production

	1st phase	2nd phase
Phosphoric acid	125,000 tons/year	250,000 tons/year
Diamonium phosphate	210,000 tons/year	0

This output will be almost entirely exported; turnover will be 185 million DH.

Location

At Mechra Ben Abou, Ben Guerir and the Oum-R'bia, or at Safi(adding a new unit to the existing plant).

Investment

	in 1,000 DH
Studies and Company formation	6,850
Land	80
Infra-structure and buildings	156,980
Industrial equipment	170,000
Sundry and contingency fund, working capital	51,200
Total	385,110

Or a total investment of 385 million DH, including 240 million in foreign exchange.

Operation

	Receipts (in 1,000 DH)	Expenses (in 1,000 DH)
Phosphate	186,000	33,750
Pyrrhotine		33,750
Ammonia		14,250
Others		15,310
Wages		
- Senior grades		2,700
- Labour		6,000
Balance		80,240
Total	186,000	186,000

This complex would therefore show a gross profit (before amortisation, financial charges and tax) of 80 million DH, or more than 20% of the initial investment.

Employment

800 jobs, 70 of which for senior grades and foremen.

Sub-sector 23-1

Washing Powders and Detergents

There are about a dozen undertakings where the main activity is the production of:

- washing up liquids
- detergents, washing powders and crystals
- polish

Development of the sector

Because of urban development and distribution of these products throughout the country this sub-sector has shown a sustained demand.

	1964	1965	1966
Production (in 1,000 DH)	27,330	35,340	38,830
Intermediate consumption	15,830	15,320	16,845
Investment	1,280	2,540	690
Personnel	290	450	450

This growth of home production has resulted in a drop in imports from 3,830,000 DH in 1963 to 3,830,000 DH in 1963 to 3,050,000 DH in 1966.

Imports

	1963	1964	1965	1966
Value (in 1,000 DH)	3,830	3,000	2,520	3,050
Volume (tons)	1,900	1,250	1,300	1,250

Estimates for 1973

In view of past trends a growth rate of 4½% (in volume) was adopted for home consumption.

Imports should also drop and become steady at around 2,000 tons.

	1968	1973	Increase 1968-1973
Home consumption (in tons)	12,500	15,600	3,100
Imports (in tons)	2,000	2,000	
Home production (in tons)	10,500	13,600	3,100
Production capacity	12,500	15,500	3,000
Personnel	460	540	

Our long-term production capacity therefore seems to be inadequate. An increase in capacity of 4,500 tons would raise the rate of utilisation of this capacity to 87%.

Investments needed have been estimated at 2 million DH approximately.

No new building is planned, simply extension of the existing undertakings.

Investment

Type	Expenditure (in 1,000 FH)
Studies, land	100
Buildings	200
Material	750
Installations, Local purchases	200
Vehicles, sundry	50
Working capital	900
Total	2,200

Employment

New personnel needs are estimated at 80, including 10 foremen.

Operation

	Receipts (in 1,000 DH)	Expenses (in 1,000 DH)
Sales	10,850	
Raw materials		7,400
Power, maintenance		330
Transport		120
Overheads		900
Wages		500
Balance		1,600
Total	10,850	10,850

Sub-sector 23-2

Paints and Polish

Nine undertakings are known at present to be manufacturing or processing paint and polish.

Development of sect

	1960	1962	1964	1968	1973	Increase 1968/73
National production	6,300	7,200	7,300	9,500	12,400	2,900
Imports	820	760	840	400	400	
Needs	7,120	7,960	8,140	9,900	12,800	
Production capacity			11,000	11,000	15,000	4,000
Rate of utilisation			66%	86%	83%	

There was no investment in this sector during the Three Year Plan 1965-1967, in spite of the estimates of 2,300,000 DH.

The annual growth rate was estimated at 5½% resulting in an increase in demand of 2,900 tons. In order to meet this increase in demand and bring the rate of utilisation of installed capacity to 80%, present capacity should be increased by 4,000 tons, requiring an investment of approximately 2,700,000 DH (extending existing plant).

Investment

Overall investment was estimated at 2,700,000 DH broken downs as follows.

Type	Expenditure (in 1,000 DH)
Materials (imported)	1,500
Installations, local purchases	400
Vehicles, sundry	100
Working capital	700
Total	2,700

Operation

Increased sales should result in a turnover of some 7 million DH.

Sub-sector 23-3

Insecticides and Fungicides

Seven undertakings are known to be manufacturing or processing insecticides, anti-cryptogamics and disinfectants, employing some 100 persons.

Development of the sub-sector

	1960	1962	1964	1968	1973	Increase 1968/73
National production	1,760	2,400	2,460	5,100	8,700	3,600
Imports	4,070	3,530	4,210	3,900	4,000	100
Needs	5,830	5,930	6,670	9,000	12,700	3,700
Production capacity				6,000	10,000	
Rate of utilisation				85%	87%	

Demand in this sector is very varied; it is unlikely therefore that imports will be eliminated, particularly as overall demand is low.

A considerable increase in home production and consumption, however, was planned as a result of Morocco's population concentrating more in the towns. Demand will rise from 9,000 tons in 1968 to 12,700 tons in 1973, or an annual growth of 7%.

In order to meet this increase in home demand, existing undertakings will be extended: production capacity will rise from 6,000 to 10,000 tons/year.

All these enterprises are situated at Casablanca.

The table below shows the investment estimates and variations in intermediate consumption.

Investment

Type	Expenditure (in 1,000 DH)
Studies, land, buildings	0
Imported equipment	1,200
Installations, purchases	300
Vehicles	100
Working capital	750
Total	2,350

Employment

6 foremen and 40 specialised workers and labourers.

Operation

Production : 3,600 tons

Type	Receipts (in 1,000 DH)	Expenses (in 1,000 DH)
Sales	7,200	
Raw materials, purchases		5,100
Power, maintenance		200
Transport, overheads		365
Wages		240
Balance		1,295
Total	7,200	7,200

Sub-sector 23-4

Essential Oils

These are mainly export products: Furthermore the market is very limited and shows considerable variation in trade and price from one year to the next.

Development of the sector (in 1,000 DH)

	1960	1962	1964	1968	1973	Increase 1968/73
Production	4,000	5,100	5,400	7,000	10,000	3,000
Exports	8,329	5,924	5,429	7,000	10,000	3,000
Production capacity	-	-	-	8,000	11,500	3,500
Rate of utilisation				87%	87%	

Special efforts will be devoted under this sector during the 1968-1972 period to export quality control, incentivation for improving the quality and to marketing policies.

These efforts should result in an increase in production of 3 million DH.

Some 1,300,000 DH will need to be invested in this sector to ensure this production growth, raising production capacity by 3,500,000 DH.

For this purpose:

- the factory at Casablanca will be extended;
- a mobile processing unit will be constructed to be used at the collection sites.

Estimates are given below of the investment and variations in consumption.

Investment (in 1,000 DH)

	Expenditure (in 1,000 DH)
Studies, Land, Buildings	0
Equipment	500
Installations, purchases	120
Vehicles	180
Working capital	500
Total	1,300

Employment

Apart from part-time employment (gathering), 40 additional jobs will be created, five of which will be for foremen.

Operation

	Receipts (in 1,000 DH)	Expenses (in 1,000 DH)
Sales	3,000	
Raw materials, purchases		1,500
Power, maintenance, costs		150
Overheads		200
Transport		250
Wages		900
Balance		
Total	3,000	3,000

Resulting in a gross profit (before deduction of taxes, amortisation and financial charges) equal to 30% of turnover).

Sub-sector 23-5

Perfune Trade

- Fragrant substances
- Liquid perfumes
- Shaving creams
- Toothpaste
- Capillary products
- Sundry perfume products.

Eight undertakings are known to operate in this sector, employing some 200 persons all situated in Casablanca.

Development of the sector

(in 1,000 DH)

	1960	1962	1964	1968	1973	Increase 1968/73
Home production	3,800	5,400	5,630	9,100	10,800	1,700
Imports	8,170	7,020	5,270	700	1,000	300
Needs	11,970	12,420	10,900	9,800	11,800	2,000
Production capacity				11,000	12,000	1,000
Rate of utilisation				83%	90%	

Local production in this sector has grown rapidly as a result of the protection provided.

Investment estimates amount to 850,000 DH over the period 1968-1973 (against an investment under the 1965-1967 period of 800,000 DH).

No new factories are planned but the existing enterprises (in Casablanca) will be extended.

The only investment planned is for the purchase and installation of new tooling (700,000 DH) and for increasing working capital (150,000 DH).

Employment

20 jobs including 3 foremen.

Operation

Type	Receipts (in 1,000 DH)	Expenses (in 1,000 DH)
Sales	1,700	
Raw materials, purchases		880
Power, maintenance and overheads		110
Transport		80
Wages		160
Balance		470
Total	1,700	1,700

Sub-sector 23-6

Soaps

The market is supplied mainly by Moroccan output. Imports (luxury toilet soaps) are negligible.

Thirteen enterprises are known to exist, employing some 500 persons, with a turnover of approximately 46 million DH.

Development of the sector

(tons)

	1960	1962	1964	1968	1973	Increase 1968/73
Production	24,000	25,200	29,330	30,000	34,000	4,000
Imports	560	270	220	200	200	-
Needs	24,560	25,470	29,550	30,200	34,200	4,000
Production capacity				45,000	45,000	0
Rate of utilisation				67%	76%	+ 9%

The installed capacity is considerably in excess of requirements and therefore needs no extension.

Sub-sector 23-7

Stearin Production

This sector manufactures candles and some ten enterprises are known to exist, employing approximately 200 persons and with a turnover of around 10 million DH.

Development of the sector

(1,000 DH)

	1960	1962	1964	1968	1973	Increase 1968-73
Production	5,300	4,700	4,760	4,700	4,700	-
Exports	-	-	360	200	200	-
Needs	-	-	5,120	4,900	4,900	
Production capacity				10,000	10,000	
Rate of utilisation				47%	47%	

With increasing urban development and the extension of the electricity network, demand in this sector is becoming stagnant and even dropping. Production capacity is well in excess of requirements and in view of future prospects there is no need for it to be increased.

Sub-sector 23-8

Pharmaceutical products

There are eight undertakings which manufacture or process pharmaceutical products, one of which only began operating in 1966. These enterprises employ 600 people and have a turnover of 20 million DH or approximately 30% of imports.

In spite of the gradual departure of Europeans, consumption moreover has continued to increase; this led to 4½% being adopted as the annual growth rate of local consumption during the period 1968-1973.

This sector could be developed considerably through the possibilities provided by the cultivation of medicinal plants.

Imports, Exports

	1963	1964	1965	1966
Imports				
Value (in 1,000 DH)	58,760	60,190	55,510	61,240
Quantity (in tons)	2,333	2,193	1,900	3,040
Exports				
Value (in 1,000 DH)	1,630	1,410	615	580
Quantity (in tons)	140	84	35	28

Local Production, Estimates

The table below shows the growth of turnover achieved by the sector over the past years, employment and the targets fixed for 1973.

	1964	1965	1966	1968	1973	Increase 1968/73
Turnover (in 1,000 DH)	11,800	14,900	19,200	29,000	38,600	13,000
Production capacity (in 1,000 DH)	-	-	-	45,000	60,000	15,000
Personnel	250	420	600	650	750	100

Needs however, are less than local production and imports combined, as a result of the marketing activities carried out by certain enterprises.

Extension of the capacity of existing enterprises to meet a turnover growth of 13 million DH is estimated at 15 million DH.

Investment estimates and the increase in intermediate consumption are shown below.

Investment

Type	Expenditure (1,000 DH)
Studies, land buildings	0
Equipment	3,000
Installations and local purchasés	700
Vehicles, Sundry	300
Working capital	1,500
Total	5,500

Employment

Around 100 jobs, including some 20 senior staff and foremen and 80 specialised workers.

Operation

	Receipts (in 1,000 DH)	Expenses (in 1,000DH)
Sales	13,000	
- Raw materials		8,000
- Power, maintenance, transport and overheads		1,300
- Wages		
senior staff and foremen		80
specialised workers		600
- Balance		3,020
Total	13,000	13,000

Sub-sector 23-10

Matches

There are three undertakings which manufacture matches and are able to meet demand.

Growth of output and employment

	1964	1965	1966
Production (in 1,000 DH)	13,100	14,510	14,540
Personnel	380	340	340

With the increasing urban development and bearing past trends in mind an annual growth rate of 4½% was adopted for this sub-sector.

This results in the following table:

	1968	1973	Increase 1968/73
Home consumption (in 1,000 DH)	15,600	19,500	3,900
Production (in 1,000 DH)	15,600	19,500	3,900
Production capacity (in 1,000 DH)	18,000	23,000	5,000
Personnel	360	400	40

No exports or imports are planned so that output should be equal to home consumption.

In order to raise production capacity from 18 to 23 million DH, existing plant will be extended. One of these extension projects is already under construction.

The total investment needed is estimated at 3,200,000 DH.

Type	Expenditure (in 1,000 DH)
Buildings	500
Imported equipment	1,500
Installation	600
Working capital	600
Total	3,200

Employment

New staff requirements are estimated at 40, including 3 foremen.

Operation

Increase in receipts: 3,900,000 DH.

Type	Receipts (in 1,000 DH)	Expenses (in 1,000 DH)
Sales	3,900	
Raw materials		2,580
Power, maintenance		180
Transport, overheads		160
Wages		250
Balance		790
Total	3,900	3,900

Sub-sector 23-11

Agar - Agar and Alginates

There are three enterprises which produce Agar-agar and alginates, employing an average of some 160 persons.

Development of sector

	1964	1965	1966
Production (in 1,000 DH)	3,480	4,970	6,670
Personnel	95	170	160

Production is governed by export possibilities and the materials available (collection of algae).

The price of the product however, is fairly stable and has a high value/weight ratio (150 DH/Kg).

Exports

	1960	1961	1962	1963	1964	1965
Exports (in tons)	450	120	260	345	215	350
Exports (in 1,000 DH)	5,000	6,350	3,600	5,000	3,250	5,000

Targets 1968-1973

Some 500 tons should be produced and exported by 1973. For this purpose a production unit is planned at Kenitra. The table below shows the approximate figures.

(in tons)

	1968	1973	Increase 1968/73
Production	400	600	200
Exports	400	600	200
Production capacity	600	850	250
Personnel	180	330	150

This factory, costing some 3,200,000 DH, will produce 200 tons of agar a year, or a turnover of 3,000,000 DH. Exports of agar will therefore yield around 9,000,000 DH in 1973.

Sub-sector 24-1

Tyres and Inner Tubes

This sector includes:

- Tyres and inner tubes for industrial vehicles and motor coaches
- Tyres and inner tubes for motor cycles and cycles.

A distinction should also be made as far as motor coach and industrial vehicle tyres are concerned between new tyres and re-treads.

I - Coach Tyres and Inner Tubes

There is only one enterprise manufacturing new tyres and inner tubes for industrial vehicles and motor coaches. This firm is able to meet home demand.

Over the period 1960-1968 imports dropped to an absolutely minimum level.

Exports which began in 1963 and made considerable progress in 1964 and 1965 were practically nil in 1967.

Imports, Exports (in 1,000 DH)

	1963	1964	1965	1966
Imports	11,160	13,210	6,250	5,790
Exports	300	900	1,590	1,090

Home production

Production of tyres increased from 47,000 units in 1961 to 245,000 units in 1966 and that of inner tubes from 37,000 units in 1962 to 185,000 in 1966.

	1962	1963	1964	1965	1966
Tyres (in 1,000 units)	125	170	215	235	245
Inner Tubes (in 1,000 units)	37	145	180	180	185

Taking into account the increasing numbers of vehicles (3½%) and the growth of exports, the tyre targets for 1973 were estimated as follows:

Targets for 1973 (1,000 units)

	1968	1973	Increase 1968/73
Home consumption	300	360	60
Imports	30	35	5
Exports	20	50	30
Home production	290	375	85
Production capacity	350	450	100

The same factory also manufactures inner tubes for motor coaches and vehicles.

Past growth

	1964	1965	1966
Production (1,000 units)	178	181	185
Imports	21	20	20
Exports	-	-	-
Home consumption	199	201	205

Estimated growth

Future growth in demand can be assumed to increase at the same rate as the number of vehicles. It is hoped that exports will account for 10% of production (20,000 units).

Unit : 1,000

	1968	1973	Increase 1968/73
Home consumption	220	265	45
Imports	15	17	2
Exports	20	30	10
Production	225	278	53
Production capacity	240	340	100

Tyre and inner tube production forecasts are governed by exports. This firm, however, is able to meet the home market requirements and can therefore only expand in relation to its export possibilities. The forecasts below may therefore be considerably exceeded if the share of exports in total sales should increase.

To cope with increased production the firm will need to make new investment.

Investment was estimated at around 10 million DH.

- Buildings	100,000 DH
- Materials	5,000,000 DH
- Installations	500,000 DH
- Sundry	400,000 DH
- Working capital	4,000,000 DH

2 - Cycle and Motor Cycle Tyres and Inner Tubes

At the beginning of 1968 there was only one factory manufacturing tyres and inner tubes for cycles and motor cycles (40,000 tyres and 70,000 inner tubes).

The major proportion of home consumption has therefore been imported (900,000 tyres and 900,000 inner tubes/year).

Imports

	1963	1964	1965	1966
Weight (in tons)	730	600	580	670
Value (in 1,000 DH	3,560	3,130	3,130	3,040

Over the past ten years cycle and motor cycle tyre consumption has increased at a rate of 5½% a year. This rate should be maintained throughout the period 1968-1973.

Forecasts for 1968/1973

(in 1,000 units)

	1968	1973	Increase 1968/73
1) Home consumption			
- Tyres	900	1,160	260
- Inner tubes	900	1,170	270
2) Home production			
- Tyres	50	800	750
- Inner tubes	100	900	800
3) Imports			
- Tyres	850	360	-490
- Inner tubes	800	270	-530
Production capacity			
- Tyres	150	1,150	1,000
- Inner tubes	150	1,150	1,000
Personnel	80	230	

The intension is therefore to:

- extend the existing factory, and
- build another factory or even two factories.

Investment is estimated at 6,150,000 DH.

Investment

Type	Expenditure (in 1,000 DH)
Studies Land Buildings Material Installations Vehicles, Sundry Working capital	150 100 400 3,400 700 400 1,000
Total	6,150

Employment

- senior staff	3
- foremen	15
- specialist workers	130

Operation

Type	Receipts (in 1,000 DH)	Expenses (in 1,000 DH)
Sales	4,000	
Raw materials Power, maintenance Transport, overheads Wages Balance		2,120 280 130 820 650
Total	4,000	4,000

3 - Manufacture of Rubber

There are only four enterprises producing rubber goods (other than tyres, inner tubes and shoes). Demand has grown considerably over the past few years.

Growth 1964-1966

	1964	1965	1966
Production (in 1,000 DH)	9,980	11,950	13,520
Intermediate consumption (in 1,000 DH)	6,120	6,180	7,490
Purchase of capital goods (in 1,000 DH)	610	390	1,000
Personnel	435	460	480

This growth of home production has not been at the expense of imports.

Imports

	1963	1964	1965	1966
Value (in 1,000 DH)	26,500	31,900	25,100	29,600
Quantity (in tons)	12,850	8,970	6,520	5,400

The largest item of imports is conveyor and transmission belts (14.5 million DH in 1965, or 850 tons).

Exports of manufactured rubber products are negligible.

Estimates for 1973

	1968	1973	Increase 1968/73
Home production (in 1,000 DH)	16,000	35,000	19,000
Imports (in 1,000 DH)	32,000	30,000	2,000
Home consumption (in 1,000 DH)	48,000	65,000	17,000
Production capacity	20,000	50,000	30,000

A considerable growth in the consumption of rubber goods is planned. This will derive mainly from the strong demand for conveyor belting for the mining sector: phosphate production according to estimates is increasing by more than 60% in tonnage.

Considerable growth is also envisaged of the home production of rubber goods. This derives partly from the strong growth in past years which should on principle be maintained: existing factories should be extended in order to meet this growth. There is also a factory which has planned the production of conveyor belting.

Total investment is estimated at approximately 10,500,000 DH.

Investment

Type	Expenditure (in 1,000 DH)
Studies	210
Land	100
Buildings	1,200
Material	4,200
Installations	1,200
Sundry	600
Working capital	3,000
Total	10,510

Employment

- 3 senior staff
- 10 foremen
- 100 workers

Sub-sector 25-1

Paper and Pulp

There is only one enterprise in Morocco which produces paper pulp (short fibre cellulose) the present capacity of which is 40,000 tons.

By contrast, long-fibre pulp and used paper are imported, together with paper and board to supply Morocco's paper and board factories.

Imports of paper pulp, used paper, paper and board

	1960	1961	1962	1963	1964	1965	1966
Paper pulp, used paper (in tons)	16,000	27,000	28,000	25,000	27,000	23,000	27,000
Paper and Board (in tons)	23,000	29,000	21,000	39,000	34,000	24,000	25,000

Imports therefore amount to an equivalent of 50,000 tons of long fibre pulp or a value of 45,000,000 DH.

Home production and sales (in tons)

	1963	1964	1965	1966	1967	1968	1973	Increase 1968/73
Exports	26,800	25,700	26,900	30,600	33,000	32,000	98,500	66,500
Home sales	2;200	2,500	3,400	4,000	5,000	6,000	11,500	5,500
Production	29,000	28,200	30,300	34,600	38,000	38,000	110,000	72,000

Exports go solely to E.E.C. countries and the United Kingdom.

In order to raise production capacity to 110,000 tons an investment of 102 million DH is planned, the proportion of imports being estimated at 55 million DH.

Investment

Type	Expenditure (in 1,000 DH)
Civil engineering, buildings	7,050
Electrical equipment	5,300
Manufacturing equipment	50,450
Transport equipment	3,800
Assembly	2,400
Others	6,000
Contingency	15,000
Working capital	7,000
Interim interest	5,000
Total	102,000

This investment indeed will not only raise production capacity by 40,000 tons to 110,000 tons but replace out-of-date equipment which would in any event have had to be changed.

New Jobs

1 - Permanent (in the factory): 150 jobs

2 - Seasonal (eucalyptus plantations, gathering)
5,000 for approximately 4 months, or the equivalent of 1,600 jobs.

Operation

Differences occur between receipts in 1973 and present receipts and expenditure in 1973 and present expenditure.

The prices taken into account in respect of receipts are present prices.

Type	Increase in receipts (in 1,000 DH)	Increase in expenditure (in 1,000 DH)
Sales	50,462	-
Consumer goods		6,960
Timber		7,175
Transport		7,935
Power		1,920
Others		1,845
Wages (Factory)		1,360
Balance		23,267
Total	50,462	50,462

Sub-sector 25-2

Manufacture of Paper and Board

There are four enterprises which manufacture paper and board and employ 950 persons.

Estimated growth of demand (in 1,000 DH)

	1965	1968	1970	1973
Writing and printing paper	11	14.5	16	20
Industrial paper (excluding newspaper)	24	27	29	33
Total (paper)	35	41.5	45	53
Board	25	30.5	35	43

Present production capacity (beginning of 1968)

Paper	20,000 tons
Board	37,000 tons

For paper, therefore, present capacity only meets 50% of the market's requirements. By contrast, for board at present there is a surplus capacity, but in 1971 this will again become a production deficit.

The factory, however, is being extended: capacity should rise from 8,000 to 20,000 tons of net production. The new factory will start operation in 1968.

The following balance will therefore be achieved:

	1968	1970	1973
1 - Paper			
Demand	41.5	45	53
Production	25.5	30	30
Imports	16	15	23
2 - Board			
Demand	30.5	35	43
Production	30.5	35	37
Imports	-	-	6

In addition to extending the Tetouan factory a new unit or extension should be planned in 1972 amounting to some 15,000 tons.

A private group has put forward a project for 14,000 tons output/year under normal operation (7,000 tons at the beginning). The enterprise would be located at Kenitra.

I - Extension of the Tetouan Factory

This extension at present under construction will increase production capacity from 8,000 to 20,000 tons of paper (net production). The new factory will start operating in 1968 and be on full stream in 1969.

Type	Expenditure (in 1,000 DH)
Material	7,080
Transport	1,100
Installation and civil engineering	1,150
Contingencies	1,000
Working capital	2,750
Total	13,080

Employment

New jobs will number 60.

Operation

Under normal operation production would reach 20,000 tons against 8,000 tons before investment.

Expenditure and receipts will be increased

Type	Increase in receipts (in 1,000 DH)	Increase in expenditure (in 1,000 DH)
Sales	22,000	
Raw materials		11,200
Production costs		1,770
Overheads		670
Transport		1,000
Taxes		500
Wages		1,940
Balance		4,920
Total	22,000	22,000

Project at Kenitra or Mohammedia

Employment

260 jobs including 20 senior staff and foremen. The company will distribute 165,000 DH in wages.

Operation

The factory should either export or operate for a certain period below capacity: imports will be maintained even beyond 1973.

However, at a level of 7,000 tons the unit cost would be 1,500 DH/ton (including amortisation).

Variable expenses	1,080
Fixed expenses (including amoritsation)	420
Total	1,500

Sub-sector 25-2

Paper and Board Processing

There are more than 30 enterprises engaged in processing paper and board (production of school and office supplies, bags sacks, boxes and various paper and board articles) which employ some 1,000 persons.

Past movement

	1964	1965	1966
Production (in 1,000 DH)	60,050	45,370	50,140
Employment	1,230	910	950

The future growth of requirements is given in the table below.

	1968	1973	Increase 1968/73
Home consumption (in 1,000 DH)	74,100	92,100	18,000
Exports	100	100	-
Imports	5,100	4,100	- 1,000
Production	69,100	88,100	19,000
Production capacity	120,000	120,000	-
% of utilisation	58%	73%	
Personnel	1,300	1,500	200

Production capacity is largely in excess of requirements and will not be increased under the 1968/1973 period.

Sub-Sector 3-4

Printing

This sub-sector incorporates journals, newspapers, binding and packaging. The figure for the sub-sector amounted to 58,900,000 DH in 1964.

	Turnover	Personnel
Printed matter	41,580	1,780
Newspapers	14,180	400
Binding	3,140	500
Total	58,900	2,680

In spite of the growth of demand (annual growth rate of 6%) as a result of the increased school attendance and urban development, there is no need to increase this sector's production capacity.

Estimates (in 1,000 DH)

	1968	1973	Increase 1968/73
Home consumption	84,000	112,000	28,000
Exports	2,500	2,500	-
Imports	16,500	19,000	3,500
Production	70,000	95,500	25,500
Production capacity	110,000	110,000	-
% of utilisation	64%	87%	+ 23%
Personnel	2,900	3,100	200

Sub-sector 26-5

Vegetable Horsehair

This sector's main outlet is exports.

Since 1960 both production and exports have dropped slightly.

	1960	1961	1962	1963	1964	1965
Production (in 1,000T)	97	88	81	84	86	-
Exports (in 1,000 tons)	100	93	86	85	85	74
Value of exports (in 1,000 DH)	31,570	32,760	32,060	31,340	31,700	27,250

Although the average export price remained steady throughout the whole of the 1961-1965 period (365 DH/ton) the volume of exports showed no appreciable change. It would also seem that East European markets could replace West European markets.

No changes are therefore envisaged in production or exports and the aim is to maintain production at 85,000 tons/year.

Personnel employed in this sector number some 25,000 persons.

Sub-sector 26-9

Transformation of Plastics

There are some 20-odd enterprises engaged in processing plastics: shoes and plastic containers.

Development of the sector

Unit : 1,000 DH

	1963	1964	1965	1966
Home production	30,000	40,000	47,000	55,000
Imports	3,600	2,570	1,840	2,810
Exports	1,630	1,410	620	580
Home consumption	31,970	41,160	48,220	57,230

Home production which was only 8,230,000 DH in 1960 bordered on 60,000,000 DH in 1968. In spite of this, however, the per capita consumption is still very low and a strong growth in the consumption of plastics is anticipated during the years 1968-1973. There should also be a qualitative modification of demand: certain products being abandoned in favour of new ones.

Investment will be needed for adaptation.

Investment in this sector during the period 1965-1967 inclusive amounted to 8 million DH (6 million in 1966) against estimates of 3 million DH.

Forecasts for 1973

	1968	1973	Increase 1969/73
Internal consumption (in 1,000 DH	60,000	96,000	36,000
Exports	2,000	2,000	-
Home production (in 1,000 DH)	59,000	95,000	36,000
Imports (in 1,000 DH)	3,000	3,000	-
Production capacity (in 1,000 DH)	100,000	150,000	50,000
Personnel	1,800	2,140	340

Because of this qualitative modification of demand a wide surplus production capacity has been planned (50%).

Exports should be stabilised at 2 million DH although in view of the surplus production capacity this estimate may be rather on the low side.

Capacity will be increased by extending existing enterprises; production will be diversified, new techniques adopted and production increased.

Total investment is estimated at 28 million DH, including 3 million DH for working capital (one month and a half of turnover).

Investment

Type	Expenditure (in 1,000 DH
Studies	800
Buildings, land	2,000
Imported equipment	16,000
Installations, local purchases	4,000
Vehicles	200
Sundry	2,000
Working capital	3,000
Total	28,000

Employment

3 senior staff
35 foremen
300 specialised workers

Operation

	Receipts	Expenses (in 1,000 DH)
Sales	36,000	
Raw materials		21,410
Power, maintenance		990
Transport		360
Overheads		3,600
Wages		3,250
Balance		6,390
Total	36,000	36,000

Exports, however, may well be higher than the figures shown; this would improve even further this sector's profitability.

Sub-sector 27-1

Bricks, tiles, ceramics

This market is closely connected with the building sector which itself is a function of Government efforts and the state of the market. This table below shows the movement of the building index in the urban sector (value of buildings).

Movement of building

	1960	1961	1962	1963	1964	1965
Value (10^6 DH)	190	165	193	237	202	240
Index	100	87	102	125	107	126

The number of enterprises known to be engaged in this sub-sector in the production of bricks, tiles and ceramics is around twenty.

The table below shows the movement of the sub-sector during the years 1964-1966.

- Turnover
- Intermediate consumption
- Investment by these enterprises for renewal or increase of production capacity
- Personnel

Movement 1964-1966

	1964	1965	1966
Production (in 1,000 DH)	13,940	13,400	15,100
Intermediate consumption (in 1,000 DH)	5,100	4,510	5,300
Investment (in 1,000 DH	1,160	2,050	600
Personnel	1,400	1,300	1,500

Imports, exports

	1963		1964		1965		1966	
	Value (1000 DH)	Quantity (tons)	Value (1000 DH)	Quantity (tons)	Value (1000 DH)	Quantity (tons)	Value (1000 DH)	Quantity (tons)
Imports								
Refractory bricks	490	500	240	250	520	590	720	640
Sanitary-ware	1,900	1,500	1,980	1,400	1,920	1,180	2,060	1,320
Ceramics (pottery and chinaware)	4,990	4,870	6,150	5,770	4,950	4,610	5,740	4,970
Exports								
Refractory bricks	1,540	3,250	2,480	5,060	3,810	7,400	550	9,380

Exports of chinaware are negligible.

By contrast, exports of refractory bricks are almost eight times higher than imports and almost three times higher than home consumption.

As a result of the slack period 1965-1968 the Government planned considerable efforts in the building sector (construction of medium-rent dwellings and building credits).

In view of these efforts an annual growth rate of 6% was adopted for the home consumption of bricks and tiles.

Export tonnages of refractory bricks are equivalent to the figures for 1966.

The targets for 1973 are therefore as follows:

1 - Bricks - Tiles

	1968	1973	Increase 1968/73
Consumption (tons)	138,000	184,000	46,000
Production (tons	138,000	184,000	46,000
Production capacity (tons)	160,000	200,000	40,000

2 - Refractory bricks (in tons)

	1968	1973	Increase 1968/73
Home consumption	3,780	5,050	1,270
Exports	10,000	10,000	-
Imports	500	500	-
Production capacity	17,000	17,000	-

No new investment is therefore planned on principle for refractory bricks unless export prospects appear more favourable.

3 - Ceramics

Up to now ceramic production has been confined to the craft industry production of chinaware which cannot meet or satisfy industrial requirements (building) and consumption (chinaware).

Prospects for 1973

	1968	1973	Increase 1968/73
Home consumptions (in tons)	6,500	8,440	1,940
Imports	6,500	3,540	- 2,960
Home production	-	4,900	4,900
Personnel	-	120	-

Investment in the brick, tile and ceramic sector

Production of bricks and tiles should rise from 138,000 tons in 1968 to 184,000 tons in 1973 and production capacity should be increased by some 240,000 tons a year. Investment is estimated at 4,500,000 DH (extending existing enterprises).

A project is also planned at Fez for the production of ceramics (13,040,000 DH).

Investment

	Expenditure (in 1,000 DH)
Study	240
Land	150
Buildings	1,000
material	9,100
Installations	2,800
Vehicles, Sundry	1,450
Working capital	2,900
Total	17,640

Employment

The need for new personnel is as follows:

- Senior staff	2
- Foremen	30
- Labourers	225

Operation

Type	Receipts (in 1,000 DH)	Expenses (in 1,000 DH
Sales	9,680	
Raw materials		3,320
Power, maintenance		1,615
Transport		500
Overheads		400
Wages		2,055
Balance		1,790
Total	9,680	9,680

Sub-sector 27-4

Glass

This sector embraces enterprises (about a dozen) producing:

- glass, mirrors, safety glass, glass objects;
- hollow glass (bottles, dishes and goblets);
- flat glass (window glass, ornamental printed or rolled glass).

These enterprises have a turnover of some 20 million DH and employ approximately 600 people.

Imports

Only imports of glass objects dropped regularly since 1960 as a result of the growth of home production. Imports of flat and hollow glass have been mainly steady.

	1963		1964		1965		1966	
	Value (1000 DH)	Quantity (tons)	Value (1000 DH)	Quantity (tons)	Value (1000 DH)	Quantity (tons)	Value (1000 DH)	Quantity (tons)
Glass objects	7,580	3,210	5,8[illegible]0	2,590	3,330	1,560	5,520	2,130
Flat glass	1,450	4,960	1,[illegible]0	4,920	930	4,810	1,310	4,190
Hollow glass	4,150	1,470	4,330	910	4,120	1,160	3,840	1,230
Total	13,180	9,640	11,180	8,420	8,380	7,530	10,670	7,550

Exports are almost nil: 110,000 in 1966.

Up to 1966 home production was confined to manufacturing hollow glass and glass objects.

A factory built to produce flat glass with a production capacity of around 10,000 tons/year became operational in 1967.

Home production

	1962	1963	1964
Hollow glass (in tons)	12,000	14,000	11,000
Glass objects	2,710	1,550	1,750
Flat glass	-	-	-

Forecasts for 1973

Present production capacity of flat and hollow glass is adequate to meet growth of demand. As a result of the stabilisation of the foreign population and of urban development demand should grow at an annual rate of around 5½%.

By contrast, the production capacity of glass objects will not be adequate to meet increased demand in spite of the growth rate adopted of 3%.

The investment needed to increase production capacity is estimated at 1 million DH.

Estimated growth (1968-1973)

	1968	1973	Increase 1968-73
1 - Glass objects (1000 DH)			
- home consumption	8,350	9,600	1,250
- imports	5,150	5,500	350
- home production	3,200	4,100	900
- production capacity	3,500	4,700	1,200
2 - Hollow glass (tons)			
- home consumption	17,500	22,300	4,800
- Imports	2,000	2,000	-
- home production	15,500	20,300	4,800
- production capacity	26,000	26,000	-
3 - Flat glass (tons)			
- home consumption	5,900	8,300	2,400
- imports	200	200	-
- exports	-	900	900
- home production	5,700	9,000	3,300
- production capacity	10,000	10,000	-
Personnel total	620	660	40

Operation

	Expenses (in 1,000 DH)	Receipts (in 1,000 DH)
Sales		7,000
Raw materials	4,770	
Power, maintenace, transport	170	
Overheads	280	
Wages	420	
Balance	1,360	
Total	7,000	7,000

Employment

Additional jobs will be for eight foremen and 50 labourers and employees.

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PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 8

CRAFT INDUSTRIES

CRAFT-INDUSTRIES

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CRAFT-INDUSTRIES

As a section of the national economy the craft-industries are still little known as a result of the difficulties in obtaining accurate statistics. The number of craftsmen or persons deriving their main income from exercising a craft trade is estimated at between 200,000 and 250,000. This is a very variable figure as it is subject to fluctuation in demand and the prices of various products manufactured. In fact, certain organisations double or treble their labour force as soon as demand increases, dropping back to their original numbers when demand slows down.

Up to now craft-industries have never been clearly defined, the distinction between the craft-industry and the other sectors of the economy being blurred.

The following types of craft-industry may be distinguished:

a) Artistic craft-industries (carpet weaving, copper and brass-ware, fancy leather goods).

The artistic craft-industries form a sector with growth potential and the table below shows by product the breakdown of the relative exports:

(Unit : 1,000 DH)

Products	1960	1961	1962	1963	1964	1965	1966	1967
Fancy leather goods	9,398	10,165	9,741	9,443	11,453	11,234	5,651	10,165
Carpets	3,131	4,160	5,481	6,522	7,828	11,077	11,708	11,299
Skins	1,411	1,679	2,466	2,955	3,396	3,174	1,480	1,458
Slippers	1,410	1,563	1,306	1,462	1,495	1,355	1,268	1,688
Blankets	973	712	630	1,051	966	1,069	467	852
Copper-ware	2,199	1,702	1,853	2,350	2,736	3,098	1,769	1,159
Sundry	1,686	1,834	1,696	1,886	3,372	3,860	3,183	3,500
Total	20,208	21,815	23,173	25,669	31,246	34,867	25,526	30,121

(Source OCE)

The table shows: a strong growth of exports over the period 1960-1965 (annual growth rate 8½% on average), followed by a recession in 1966.

- Strong growth of carpet exports in 1960-1965 (three and a half times higher during this period) followed by a levelling out in 1966 and 1967.

b) Utility craft-industries subject to competition (flour mills, craft-industry lime and plaster-work, craft-industry quarries, weaving of materials, shoe-manufacture).

This type of craft-industry will gradually diminish or even disappear altogether under the influence of competition from more efficient modern techniques; this poses the problem of reconverting the craft-industries in this sector either to industry or to the artistic craft-industries.

c) Utility, so-called "service" craft-industries, free from competition (repairs of cycles, motor vehicles, agricultural machinery, etc.....).

These activities, by their very nature, will only much later become affected by competition from similar activities in the modern sector. On the contrary they are an essential counterpart to the modern sector and they will grow as industry itself grows.

I - EVALUATION OF THE THREE YEAR PLAN

The period of the Three Year Plan 1965-1967 for the craft-industries was characterised by efforts aimed to encourage the artistic craft-industries and partially to reconvert the utility craft-industries.

In respect of the artistic craft-industries the Plan proposed to set up documentation centres, grant scholarships, provide legal protection and allocate Government orders, although this part of the programme remained incomplete. By contrast tooling was improved by setting up a fund and the commercial apparatus was extended. Credit is obtained from State banks and internal commercial transactions are now effected through Coopartim which has the rôle of a pilot shop, overseas trade being carried out jointly by the O.C.E. and private exporters.

As far as the utility craft-industries are concerned the Plan had three objectives:

- To train senior grades by completing the National Leather and Textile Institute at Fez and the Tannery Centre at Beni-Mellal.
- To complete the occupational training centres, the building of which was begun in 1964.
- To set up two new pilot production plants for weaving, dyeing and leather.

With the exception of the textile production unit (which is only partially completed) these schemes and installations were completed in full.

The Three Year Plan's programme of action 1965-1967 can be summarised as follows:

I - Occupational Training

	(in 1,000 DH)
National leather and Textile Institute, Fez,	
- Completion	80
- Moroccan share	118
Completion of the Beni-Mellal Tannery	30
Apprenticeship Centre for the cutting of semi-precious stones, Fez	50
Spinning Centre, Marrakesh) Textile Centre, Ksar El Kebir) " " Tetouan)	862
Total	1,140

II - Production Units

Production units		1,600
Stamping		100
	Total	1,700

Apart from a few delays these credits were utilised as scheduled and were fully used up at the end of 1967.

II - POLICY TRENDS

1. Reorganisation of the Directorate of Craft-Industries - Defining its Powers

This organisation at present is functioning without any precise definition of the nature of its activities, its rôle and its field of action. This results in a lack of internal organisation with the numbers of staff needed and their qualifications thereby remaining unknown.

The powers of the Directorate of Craft-Industries, its internal organisation and the ways in which it is empowered to intervene should be laid down by regulations.

2. Organisation of the trade

It is essential to lay down rules for the craft-industry trades by means of setting up of a craft industry register which, among other things, will define the craftsman. The objective is to regulate entry into the trade and the carrying out of craft-industry trades. This is an express condition for rational distribution of any aid and for efficient quality control.

3. Organisation of Marketing

Hitherto the craft industries, particularly the artistic craft-industries geared to exports, have been hindered in their growth by marketing: lack of information for customers, few if any sales networks, wildly fluctuating prices. A code will be published in 1968 for the purpose of organising this sector.

4. Craft-industry Promotion and Research

The commercial growth of the artistic craft-industries is only possible provided that:

a) there is a thorough knowledge of markets and competitive products.

b) an effort is made to adapt our goods to the needs of these markets and to improve the quality.

Buyers today are increasingly demanding and our export situation will not improve substantially until we have been able to adapt our goods, make them more original, to diversify patterns and textures according to demand. Craftsmen themselves cannot undertake the necessary research; this should be carried out by a government body which would be a craft-industry promotion and research centre.

5. Continuing the occupational training programme

The craft-industry disposes of some forty apprenticeship centres for the main craft-industry trades. Set up over the past eight years these centres are spread over the whole Kingdom and thus play both an educational and social rôle.in addition to their rôle as technical training centres. Several centres, however, are still to be set up in towns or areas where the need has become apparent.

Under the first two Plans the training of senior grades was considered one of the prerequisites for the general economic growth of the country. The scarcity of qualified technicians is indeed delaying Morocco's development and is a brake on the effective functioning of enterprises; this applies generally throughout the economy and is even more striking in such rapid growth industries as textiles which is a source of considerable investment in the country.

The National Leather and Textile Institute at Fez, therefore, which already trains technicians, will undertake the training of the higher grades of textile technicians.

6. Credit

Craft-industry credit can only be rationally organised after implementation of the "Craft-Industries' Code". In the first instance the trade itself would appear to need organising.

III - PROGRAMME OF ACTION

1 - Craft-industry groups

Craft-industry co-operatives are usually poorly equipped and have insufficient funds and senior staff to enable them to develop properly.

In order to enable these co-operatives to work under healthy and favourable conditions and to make them accessible to supervision, they should be regrouped into properly equipped establishments which reflect the position of the region's craft-industry and which would assist the development of the town. This applies particularly in the tourist field. They would also display a selection of the craft-industry products and, to a certain degree, would become pilot production centres for the region.

1.1 - The Tetouan craft-industry group

A craft industry group will be set up as an experiment at Tetouan and will include the following craft-industry co-operatives:

- A Fancy Leather Goods Co-operative
- A "Chaouen" type carpet weaving co-operative
- A fabrics weaving co-operative
- A ceramics co-operative
- An exhibition and sales centre.

This will account for the following investment:

- Purchase of land and construction of buildings:	900,000 DH
Equipment	
- Fancy leather goods co-operatives	250,000 DH
- Fabrics weaving co-operatives	350,000 DH
- Carpet weaving co-operatives	100,000 DH
- Ceramics co-operatives	400,000 DH
- Sales and exhibition centre	50,000 DH
- Electrical fittings	150,000 DH
Total	2,200,000 DH

(Annual overheads amount to : 108,400 DH)

The results achieved by this group will depend on the setting up of the four following craft-industry groupings:

1.2 - Craft-industry group at Fez

This will comprise the following co-operatives:

- Stone setting and cutting
- Embroidery
- Ceramics
- Tanning
- Textile production unit

A regional museum for traditional local products and a pilot shop will also be set up.

The cost of this group is broken down as follows:

- Purchase of land and construction of buildings	1,800,000 DH
- Stone cutting and setting co-operative	100,000 DH
- Embroidery co-operative	25,000 DH
- Ceramics co-operative	200,000 DH
- Tanning co-operative	150,000 DH
- Extending the production unit	500,000 DH
- Installation of a transformer	150,000 DH
- Museum equipment	100,000 DH
- Pilot shop equipment	50,000 DH
Total	3,075,000 DH

(Annual overheads amount to 127,800 DH)

1.3 - The craft-industry group at Marrakesh

This will consist of:

- A textile section composed of:
  - A "Haouz" and "Chichaoua" type carpet weaving co-operative
  - A fabrics and blanket weaving co-operative

- A leather section composed of:
    - a traditional leather goods co-operative
    - a cobblers' co-operative

- A basket making co-operative
- A regional museum for traditional products
- A pilot sales shop

The total investment is broken down as follows:

- Building (purchase of land and construction)	1,050,000 DH
- Equipment:	
Carpet co-operative	50,000 DH
Fabrics weaving co-operative	200,000 DH
Traditional leather goods co-operative	150,000 DH
Cobblers' co-operative	250,000 DH
Basket ware co-operative	25,000 DH
Installing a transformer	150,000 DH
Museum equipment	100,000 DH
Design office	25,000 DH
Total	2,000,000 DH

(Annual overheads amount to 115,800 DH)

1.4 - The craft-industry at Casablanca

Casablanca is a town with a touristic and industrial vocation and is in one of the most attractive natural settings.

The craft-industry group at Casablanca will comprise the following centres:

1) Textile Training and Production Centre

- Weaving of fabrics, traditional blankets etc.
- Weaving of Mediouna carpets
- Embroidery (Azemour type)

2) Leather training and Product Centre

- Modern leather goods (Handbags)
- Modern cobbling (shoes etc..)

These centres particularly the fabrics weaving, modern leather goods and cobblers' centres will play an important rôle in the training of craftsmen at Casablanca.

Annexes to these centres will also be constructed and will comprise the following:

- an exhibition hall for products manufactured
- a pilot and sales shop for craft-industry products
- a design and research office for creating models, patterns
- an instruction room.

The amount of investment can be broken down as follows:

- Land and buildings	900,000 DH
- Equipment;	
- Fabrics weaving centre	250,000 DH
- Carpet weaving centre	50,000 DH
- Embroidery centre	25,000 DH
- Modern leather goods centre	200,000 DH
- Shoemaking centre	250,000 DH
- Purchase of furniture and sundries	150,000 DH
- Installation of transformer	150,000 DH
Total	1,975,000 DH

(Annual overheads amount to 267,000 DH)

1.5 - Craft-industry group at Meknes

This group will comprise the carpet weaving co-operatives, the famous embroidery co-operative and also a woodwork centre.

The skill of the Meknes wood-carvers is very well known and this branch of our craft-industries should be organised and preserved. There will be a training and production centre split into the following sections:

- wood carving
- wood painting
- inlaid work
- hollow ware

This programme represents an investment of 850,000 DH which is broken down as follows:

- land, buildings	550.000 DH
- equipment:	
carpet weaving co-operative	50,000 DH
embroidery co-operative	25,000 DH
wood carving co-operative	25,000 DH
wood painting co-operative	25,000 DH
inlaid work co-operative	25,000 DH
hollow-ware co-operative	50,000 DH
installing a transformer	100,000 DH
Total	850,000 DH

(Annual overheads amount to 213 000 DH)

2 - Craft-Industry Promotion and Research Centre

In this centre will be shown all products with a certain originaltiy and which are witness of Morocco's artistic heritage and past artistic achievements. All folklore art will be on display, giving an idea of the particular means of expression of each region, the origin of the art and its meaning. More up-to-date products will also be exhibited together with models and patterns to guide craftsmen.

This Centre will accept the best craftsmen for final training. Under the guidance of masters of the art, craftsmen can find sources of inspiration to renew and reaffirm their talent. The fruits of their work will spread through the co-operative and they will be in the forefront of improving and embellishing our products.

All models created or improved will be made available to the group of craftsmen who, because of the precarious nature of their situation, are themselves unable to make the best use of their products by means of further research. By its efforts for the craft-industry as a whole this Centre will constitute one of the most effective aids, giving an immediate and certain benefit to the craftsmen themselves.

Cost of the operation:

- purchase of land, buildings, fitting out premises, decoration, purchase of equipment	1,000,000 DH
- setting up a display room for products, research and the purchase of characteristic articles	
- creating a library and technical documentation	30,000 DH
- photographic laboratory and drawing reproduction apparatus	50,000 DH
- design office, materials and office equipment	60,000 DH
	140,000 DH
Total cost of initial establishment	1,280,000 DH

Overheads are estimated at 532,000 DH a year.

3 - Craft-industry catalogue

The craft-industry catalogue in its design will constitute the mainstay of advertising media for all publicity purposes. This general craft-industry catalogue will show, by province, the most characteristic products and will show illustrations of each product, the sources of inspiration, the meaning of motifs, the type of materials employed and the method of preparation.

Printed in 100,000 copies, this catalogue will require an expenditure of 1,500,000 DH.

4 - Trade Fairs

In conjunction with publication of the craft-industry catalogue, trade fairs will be organised in order to publicise our craft-industry products and in order to show buyers from the large stores, decorators, interior specialists those products likely to be successful on overseas markets.

These Fairs will cost 125,000 DH a year, or 625,000 DH for the period 1968-1972.

5 - Aid in setting up co-operatives

A credit of 1 million DH is allocated for aid or assistance in setting up co-operatives in the growth trades.

6 - Raw materials buying and distributing centre

Obtaining supplies of raw materials presents a problem for craftsmen and is a constant source of worry to them.

In order to resolve this problem for the craftsmen, a central organisation will group all orders and stock supplies where necessary.

A society could be envisaged where the capital shareholdings would be held by the craftsmen's co-operatives on the one hand and by the government on the other.

Government participation will be 1 million DH.

7 - Setting up Directorate of Craft-Industries Agencies

Agencies created at Taroudant	200,000 DH
Ksar-Es-Souk	250,000 DH
Extending agencies at Azrou	210,000 DH
Khenifra	505,000 DH
Total	1,165,000 DH

8 - Setting up occupational training centres

Taroudant: (leather goods centre)	200,000 DH
Oujda: (carpet weaving centre)	50,000 DH
	250,000 DH

9 - Extension of the National Leather and Textiles Institute at Fez

This extension, including a fourth year of instruction for the textile section and increasing numbers from 150 to 300, will be achieved by means of United Nations aid (Special Fund), representing for Morocco an investment of:

Equipment: textile machinery	630,000 DH
laboratory equipment	50,000 DH
	680,000 DH
Cash contributions 1968 and 1969 (15% of the cost of experts)	250,000 DH
Total of	930,000 DH

This credit is entered under the heading "Instruction and Training of Senior Grades".

10 - Apprenticeship Centre at El Hajeb

Following the institution of military service an apprenticeship centre was set up at El Hajeb, the purpose of which is to provide occupational training to recruits having no trade.

This centre will be equipped and extended during the five year period and will comprise:

- A shoemaking section	400,000 DH
- A leather goods section	200,000 DH
- A fabric weaving apprenticeship section	820,000 DH
- Electrical fittings	150,000 DH
Total	1,570,000 DH

11 - Renewing equipment of existing senior personnel

Some centres have been unable to train craftsmen as either part of or all their equipment is out of date. A credit, therefore, of 3,510,000 DH was allocated for renewing this equipment.

IV - MEASURES

Craft-Industry Code

The Code defines the craftsman and master craftsman and limits the use of the word "craftsman" and its derivatives.

Then follows the Trades Register which is made up of a file held in each regional inspectorate where the name of the head of firm or the firm's description, the names of its directors, a description of the firm, its location, type of activity and the number of employees are all given.

The trade for which the title of craftsman or master craftsman is applied for is also indicated.

The Code then defines the enterprises listed in the Trades Register: these are mainly enterprises employing under ten wage earners. It then defines the title of craftsman or master-craftsman as indicated in the Trades register and the qualification committees which should decide on applications for the title of craftsman or mastercraftsman.

The Craft-Industry Code then describes the measures intended to benefit craftsmen and craft-industry enterprises or co-operatives in public tenders or private transactions:

- dispensing with sureties
- work reserved for craftsmen.

The Code finally lays down the provisions designed to provide aid for unemployed craftsmen.

SUMMARY OF INVESTMENT (in 1,000 DH)

HEADINGS	1968	1969	1970	1971	1972	1968-1972
Craft-industry group at Tetouan	1,200	1,000				2,200
Craft-industry group at Fez			1,000	2,075		3,075
Craft-industry group at Marrakesh				1,000	1,000	2,000
Craft-industry group at Casablanca				900	1,075	1,975
Craft-industry group at Meknes					850	850
Craft-industry research and promotion centre		1,000	280			1,280
Craft-industry Catalogue		500	1,000			1,500
Trade Fairs	125	125	125	125	125	625
Aid for setting up co-operatives			200	200	600	1,000
Raw materials buying and distribution centre					1,000	1,000
Setting up of agencies	300	300	565			1,165
Setting up of occupational training centres			200	50		250
Extending the N.O.T,I. (p.m.)						p.m.
Moroccan Government's Shareholding						p.m.
El Hajeb Centre	785	785				1,570
Renewing equipment of existing centres	600	600	800	700	810	3,510
Total	3,010	4,310	4,170	5,050	5,460	22,000

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CHAPTER 9

TRADE

TRADE

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OVERSEAS TRADE

GENERAL

Overseas trade represents some 40% of our gross national product: this indicates its vital importance for our economic growth which is governed by our exports and by which we cover, at least partially, all our imports, particularly of capital goods.

While, unlike most underdeveloped countries, the range of our exports is fairly widely deployed and includes a variety of products, it should nevertheless be admitted that it is governed by a limited number of products. Phosphates represent a quarter of exports in value; together with citrus fruits, early produce and preserves these already account for something like half. By tonnage minerals are even more preponderant and if the volume of exports is compared to the volume of imports the ratio of the first to the second is around five. This figure shows the fundamental imbalance between outgoing and incoming freight and also between the values per ton of exports and of imports.

The imbalance of geographical distribution is again considerable as one country alone, France, absorbs some 40% of our overseas trade. This fact led us to make considerable efforts after Independence to diversify our overseas markets, customers and suppliers and, although considerable progress has been made, much still remains to be done particularly as for historical and geographical reasons this imbalance will continue for some time in favour of Western Europe and mainly of the Common Market.

Negotiations began with the E.E.C. at the end of 1963 to ensure a basis for expanding our exports, particularly for agricultural and fishing products. It should not be overlooked however, that the countries of Eastern Europe constitute a rapidly expanding potential market.

While the first steps in the shape of bilateral agreements have been taken towards setting up a Maghreb market, a fully unified market should now be gradually set up by means of an overall approach to the problem, to present a united front to markets where Maghreb products are competitive.

And finally, the recent reform of the import system - as liberal as possible in view of our economic and financial postion - will result in a greater diversification of our customers and suppliers and an improvement in trade conditions.

In any event, however, because of our development needs our trade balance will remain structurally in deficit: this is a necessity which has to be accepted while the country is adopting a rigid system for selecting imports giving preference to capital goods rather than non essential consumer goods.

I - SITUATION ON THE EVE OF THE PLAN

Overseas trade between the years 1960 to 1965 was marked by an appreciable reduction in the trading deficit due to increased exports (phosphates, citrus fruits) and, after October 1964, to the import restriction measures. In 1965 therefore, exports covered imports by 101% to provide a trading surplus of 29 million DH.

The situation changed however during the remaining two years of the Three Year Plan, a period during which overseas trade was reorganised. During this period the trade deficit increased because of the drop in certain exports (minerals), the partial freeing of imports in September 1965 and the grain imports needed because of the poor agricultural production In 1966 the deficit was slightly higher than in 1964. In 1967, in addition to the above mentioned causes, the deficit increased still further because of the increased imports of capital goods, rising from 350 to 500 million DH.

TABLE I

TRADING BALANCE

In millions of DH)

	1960	1963	1964	1965	1967
Imports	2,100	2,338	2,345	2,178	2,620
Exports	1,790	1,935	2,219	2,207	2,146
Balance	- 310	- 403	- 126	+ 29	- 474

Comparison of the Statistics for 1965 and 1966 should be viewed with caution because of the modifications made in 1966 to the methods of preparing them.

The trading surplus recorded in 1965 was exceptional. Generally the persistance of the trading deficit remains a feature of overseas trade, the essential purpose of which is still development of the country.

- The share of finished consumer products dropped a little from 21% to 15% which indicates the first effects of the country's industrialisation, as home products replace imports. This reduction, however, is also due to the efforts to reduce imports of "luxury" goods.

- Purchases of food products continued to form a large proportion (27 to 28%) of imports as output is still low and consumption fairly high.

- On the other hand, the proportion of imports of finished agricultural machinery and equipment (1%) and industrial goods (19%) remained at an inadequate level in view of the need to develop the economy.

TABLE II

MOROCCO'S OVERSEAS TRADE BY CONSUMER GROUPS

IMPORTS

(in millions of DH)

GROUP OF PRODUCTS	1964		1967	
	Value	%	Value	%
Food, drink, tobacco	636	27	723	28
Power, lubricants	137	6	127	5
Unfinished products of animal or vegetable origin	243	10	269	10
Unfinished products of mineral origin	19	1	22	1
Semis	454	20	550	21
Finished agricultural equipment products	20	1	23	1
Finished industrial equipment products	324	14	506	19
Finished consumer goods	480	21	397	15
Total	2,31[illegible]	100	2,617	100

TABLE II (Cont.)

EXPORTS

(in millions of DH)

GROUP OF PRODUCTS	1964		1967	
	Value	%	Value	%
Food, drink, tobacco	1,074	49	1,062	49
Power, lubricants	16	1	11	-
Unfinished products of animal or vegetable origin	145	7	141	7
Unfinished products of mineral origin	805	37	754	35
Semis	72	3	122	6
Finished agricultural equipment products	-	-	-	-
Finished industrial equipment products	10	-	2	-
Finished consumer goods	64	3	55	3
Total	2,186	100	2,147	100

During the same period exports were slightly lower in tonnage and value.

The proponderance of agricultural and mining products at 7% and 35% respectively remains the rule. Up to now the industry has not been systematically geared towards overseas markets.

Relations with our markets, suppliers and buyers have also changed little. The distribution of our trade by country is as follows:

TABLE III

DISTRIBUTION BY COUNTRY (%)

	1964		1966	
	Imports	Exports	Imports	Exports
E.E.C.	52	62	53	60
of which France	(39)	(42)	(37)	(41)
E.F.T.A.	7	9	5	10
U.S.A.	9	1	10	2
Eastern Europe	4	5	5	8
Spain	1	4	2	4
Maghreb	3	2	1	1
Other African countries	2	2	2	2
Others	22	15	22	13
Total	100	100	100	100

This distribution is remarkably constant. The only appreciable variation lies in the drop of our exports towards the E.E.C.

In conclusion, the situation of our overseas trade changed little during the three year period. Efforts were made however to improve the structure of our trade and one of the most important measures was certainly the reform of the import syste in June 1967. As a first step towards liberalising the modaliti of overseas trade, this thorough reform brought in a necessary simplification of import procedures.

Following this simplification our imports will be restructu and freed from onerous administrative formalities, thereby enabling them to devote more efforts to better quality and more competitive prices.

II - POLICY TRENDS OF THE FIVE YEAR PLAN

Even more than in 1964, by 1973 the excess of our imports over our exports will constitute a necessary complement to production to ensure that the economy's requirements are met. The considerable investment planned during the five year period will accentuate the need to import capital goods. This investment cannot be financed without external aid, the counterpart of which will appear in the trading deficit.

The aim will be to limit the amount of this deficit and improve its structure in favour of essential capital goods.

The five year period will therefore see considerable changes in the nature of our trading relations with foreign countries. The institution by the E.E.C. of a common external tariff will be completed by 1970. Its most immediate effect for our exports will be the abolition of the duty-free quotas allowed by France.

Our overseas trade should adapt itself to this new situation, both by our joining economic groupings and by a search for new markets and new suppliers.

1 - Association with economic groupings

The most important project in this context will be our association with the Common Market. The climate of understanding noted during the negotiations conducted at the end of the Three Year Plan should result in agreement being reached at the beginning of the five year period. Association will have the enormous advantage of normalising Morocco's relations with the E.E.C. The serious doubts which hung over the future of our exports during the Three Year Plan should to a large extent be eliminated. Furthermore the opportunities provided for Moroccan products on a market of a European scale with a high purchasing power should stimulate industrial and agricultural investment in Morocco.

This same tendency to integrate into economic groupings will be evidenced by Morocco's participation in the setting up of a Maghreb economic union. During the five year period Morocco will collaborate actively in the first concrete steps taken towards an effective integration.

While not having such a great effect on our economy as association with the E.E.C. integration of the Maghreb economies has a dual advantage:

- setting up an economic grouping made up of markets which are simila in size, structure and purchasing power;
- Possibility of organised and co-ordinated action both for economic internal development of the Maghreb and for dealing with buyer countries in fields where the Maghreb economies are competitive.

2 - Search for new markets

Morocco's association with the Common Market and her integration in a Maghreb economic union will already provide considerable opportunities to diversify our trade within these groupings.

Greater diversification still, however, is essential in order for Moroccan overseas trade to continue to grow. The search for new markets undertaken during the Three Year Plan will be continued, both in countries where our exports have good chances of increasing (particularly the countries of Eastern Europe) and in those where our first major sales have aroused interest and which should result in lasting trading relationships.

With regard to the countries in the bilateral zone where our exports have the best prospects, the need to co-ordinate the export and import policies is obvious.

The free convertibility area, particularly the E.E.C., is still our main market. Even inside this same area, however, other outlets are still insufficiently exploited by Morocco and they should be developed and expanded during the five year period (United States, Scandinavian countries, Latin America etc..)

3 - Liberalisation of overseas trade

The new aspect of our relations with economic groupings and the effort to diversify our markets will require greater dynamic action by our public and private exporters. During the five year period the State will encourage this action by continuing its policy of liberalising overseas trade regulations which began by the reform in June 1967 of the import system. Defining a long term trading policy and revision of the regulations governing overseas trade should encourage our industrial exporters to be more aggressive and give them a greater competitive edge against competition by lifting controls and lightening administrative procedures as far as possible.

III - THE TARGETS

The five year period will be a period of considerable investment to ensure the country's economic "take-off" The resulting trade deficit, however, will be considerable, leading to the necessity to develop our exportable products to the maximum and to ensure that our food requirements, particularly cereals and to a certain extent sugar, are covered.

1 - Phosphates

Investigations carried out recently indicate that world phosphate exports should continue to increase fairly rapidly over the coming years.

Within the framework of these growth prospects the Cherifian Phosphates Office has forecast for the next five years the following export programme:

EXPORT FORECASTS

(in 1,000 tons)

TABLE IV

	1967	1968	1969	1970	1971	1972
Phosphate exports	9,269	11,000	11,770	14,680	15,770	17,500

The table shows that the total volume of sales should rise from 9,260,000 tons in 1967 to 17,500,000 tons in 1972 or an increase of approximately 90% over five years.

These forecasts should be considered as maximum targets. The Office will fight on equal terms an increasingly fierce competition to consolidate its position in its traditional markets and to introduce its products to the markets in Asia, Oceania and South America which offer ever increasing market prospects.

2 - Mining products

The surplus in this sector will be slightly less in 1973 than in 1964 but will show an appreciable improvement over 1968 due to the considerable investment scheduled over the five year period.

Details of mining exports are as follows:

TABLE V

Exports of other mining products

(in thousands of tons)

	1967	1968	1972
Anthracite	78	100	120
Iron ore	923	450	1,210
Lead, zinc	175	161	135
Other metallic ores	255	206	228
Sundry minerals	130	223	307

The most notable recovery in sales was of iron ore, exports of which will be three times higher as a result of the investment to be devoted to working of the Riff mines and to the treatment of pyrrhotine ashes. An increase in sales of copper manganese, fluorine and, at the end of the five year period, production of potassium should also be noted.

By contrast, the exhaustion of certain mines will result in a considerable drop in the exportable quantities of zinc and lead. In the case of the latter, however, the development of new mines will enable the level of exports to be maintained.

3 - Citrus fruits

Export forecasts of citrus fruits for 1973 are as follows:

TABLE VI

EXPORTS OF CITRUS FRUITS

	Present situation 1966 / 1967		1973	
	Q (1,000 t)	V (1,000 DH)	Q (1,000 t)	V (1,000 DH)
France	220		250	
Germany	84		190	
Benelux	26		40	
TOTAL E.E.C.	330		480	337,000
Eastern countries	140		210	
Great Britain	31		50	
Scandinavia	16		45	
Others	3		15	
TOTAL, exluding E.E.C.	190	385,000	320	205,500
TOTAL	520	385,000	800	542,500

This increase will be governed by the outcome of vital efforts concerning conclusion of an agreement with the E.E.C. and improvement in the quality of products.

The terms of association with the Common Market will have a vital effect on our exports to that area. In fact the difference in taxation should we not become associated can be assessed at something like 52 million DH.

Particular attention should also be given to those markets in Eastern Europe which show the greatest growth prospects, at least in relative terms.

4 - Cereals

Examination of Morocco's consumption of the main cereals indicates an appreciable and sustained increase, due mainly to the population growth. This phenomenon is all the more striking as against this increase in consumption production is stagnant.

TABLE VII

CEREAL BALANCE SHEET

(in 1,000 tons)

(4 cereals) Annual average	1958/1961 3 years	1960/1965 5 years	1962/1967 5 years
Production	2,780	2,733	2,610
Imports	+ 140	+ 39	+ 160
Total	2,920	2,772	3,220
Exports	- 234	- 515	- 141
Quantity available in the country	2,686	2,257	3,079

Analysis of the four headings: production, imports, exports and the quantity left in the country gives rise to the following observations:

- Production of the four main cereals is stagnant due to the succession of bad harvests through bad weather and poor yields.

- Exports which were around 500,000 tons in the first period were no more than 150,000 tons in the latter half; exports of the main cereals even ceased altogther during the 1966/1967 period.

- On the other hand imports which were negligible in 1950/1955 rose to an average of 610,000 tons in 1962/1967; this figure includes wide variations, however as the volume of imports is increasing each year (300,000 tons in 1964/1965 and 1965/1966, 1,000,000 tons in 1966/1967). A similar volume is anticipated for the 1967/1968 period.

- If the quantities of cereals produced by year and by inhabitant are compared with the consumption per head, the figures confirm the growth of requirements and the stagnation or even a reduction in overall production of cereals.

From this it can be concluded that if the programme of reinstatement and improvement of the soil were carried out, the grain deficit would be eliminated.

If for one reason or another the planned programme were not carried out, the additional needs to meet demand would amount to more than 1,100,000 tons (excluding imports within the framework of National Development), or 100,000 tons more than the level envisaged for the 1967/1968 period (including National Development).

It should also be pointed out that the level of human consumption in 1973 should equal the overall quantities from the best harvests (1956/1963) which were around 3 million tons.

Morocco is therefore faced with the following alternatives:

- either to increase production in order to meet its needs: obstacles of a natural or structural nature are in the way of this;
- or to import increasing quantities to make good this cereal deficit: this however would involve certain danger for the economy, for Morocco would then be obliged to pay for its grain purchases by dipping into its foreign currency reserves which could be better utilised for importing capital goods.

5 - Sugar and tea

TABLE VIII

SUGAR

(tons)

	1964	1967	1973
Imports	379,000	345,000	193,000

The deficit will be considerably reduced between 1964 and 1973 as a result of the sugar factory projects planned over the five year period. These projects concern building sugar refineries and factories and increasing sugar beet production both of which will have the effect of increasing sugar production and reducing imports.

Tea imports will remain stationary amounting in 1973 to 11,600 tons at an average price of 5,350 DH or approximately 62 millions.

6 - Petroleum products

TABLE IX

(Quantities in 1,000 tons)

	1964	1967	1972
	Q	Q	Q
Crude oil	956	1,216	1,850
Refined products	200	280	-
Total	1,156	1,496	1,850

This table therefore shows that the present structure of imports of oil and its by-products will change considerably over the five year period.

- Crude oil imports will increase in volume as home consumption rises: imports will increase from 1,216,000 tons in 1967 to 1,850,000 in 1972, or an increase of 50% over five years.

- Imports of refined products, however, will be practically abolished as a result of several projects being built during the five year period.

IV - THE MEASURES

Among the measures to be prescribed the main objective is to increase our exports. With imports encouragement should be given to purchases in respect of industrial development equipment: capital goods and raw materials which the country cannot supply itself.

1 - Increased exports

The growth of exports is governed by the following measures:

a) Strengthening trading networks

Growth in our sales depends primarily on a knowledge of overseas markets. Trading networks set up by State marketing bodies should form the basis for a systematic investigation of all market opportunities. In conjunction with Moroccan diplomatic representations abroad, these agents should provide the home economy with abundant and detailed information which it will be the Ministry of Trade's responsibility to publish.

b) Mining and petroleum research

Forecasts for the five year period indicate a drop in sales of most mining products. Only phosphate and iron ore sales should increase appreciably as a result of the considerable investment made. Oil imports will increase considerably.

It is important to prepare for the future by encouraging the search for new mines and oil deposits which has been somewhat neglected in previous Plans and considerable credits (cf. chapter 6 "Mining") will be allocated for this purpose.

c) Export tax benefits

Moroccan exports are subject to several taxes according to the nature of the product. However, the problem of our exports is clearly mainly concerned with prices. The system of export taxes should be lightened as in most other foreign countries, giving fiscal benefits to exports and particularly for manufactured goods.

d) Simplification of export procedures

The list of products which must be submitted for export licences should be revised. This list is no longer adapted to the present structure of the national output. Many new products can be and should be freely exported by Morocco.

2 - Selective measures in favour of imports

The most urgent reform applies to the system of payment which should benefit capital goods.

a) Improvement of the exchange control system to encourage capital goods

The following is envisaged:

- al technical ministries will bring up to date their lists of capital goods exempt from the 25% import deposit and will submit to the Ministry of Finance exemption applications for equipment of which there is an inadequate supply.
- Banks will be advised by the Exchange Control Office that a single transfer licence may be applied for, valid for all payments due under a supplier's credit and that this possibility will be expressly included in the regulations at it will enable Banks to pay without any delay monies due at several six-monthly intervals where costly capital goods have been imported.
- Banks will be authorised to apply to the Bank of Morocco for foreign currency allocations before receipt of documents in respect of any import. Payments can thus be made on due dates to our overseas suppliers. At present these are being delayed for several days at each due date.
- This measure would obviously only apply to the extent that foreign currency reserves permit.

b) Improvement of the temporary import system

It seems first advisable to legalise certain temporary imports which are regularly allowed on an exceptional basis.

Imports of raw materials which remain foreign property and are brought in under the temporary import system are also at present subject to an import licence. This formality should be abolished as has been done in many foreign countries. Such a measure would encourage certain foreign firms to bring in raw materials which do not compete with home products for transformation and re-export.

B - INTERNAL TRADE

GENERAL

The problems of internal trade whether of an economic or administrative nature have never been tackled at the roots by the Moroccan Government but only partially, in relation to limited objectives, always pragmatically and with no overall policy or programme.

From the economic point of view an examination of the trading structure, however superficial it may be, brings to light the following basic characteristics:

The structure of internal trade is characterised by the juxta-position of several quite distinct trading systems. A modern type of trading exists including well adapted equipment in the major towns, particularly in Casablanca.

In the country the marketing of products, both sales of agricultural produce and purchases of consumer goods, is carried out in the souks, in other words on a rather improvised basis and frequently situated far from towns. These markets form the normal basis of economic activity in the rural areas and provide a very valuable service.

Halfway between modern trading and the country souks there are souks in the medinas which are very well equipped and which have particular trading customs: for example side by side with streets specialising in selling one particular product, there are markets with auction sales.

These three types of trading activity should not be confused or tackled on the same basis but they do need to be adapted to the economic development of the country.

From the administrative point of view this situation results in a hotch-potch of responsibilities controlling internal trade, divided among many authorities depending on the particular case and season: Home Office, National Economy, Economic Affairs, Prime Minister's Office, Ministry of State, Trade, Industry, Agriculture, etc.

Government thinking in this respect has developed along the lines of setting up under the Ministry of Trade a Department for Internal Trade which will subsequently be elevated to the rank of Division and then of Directorate.

This new department will be specifically responsible for starting its mission with an overall review of the problems posed by internal trade. Its first and fundamental objective will be to study the whole structure of Morocco's internal trade and to note the problems involved in order to propose to the Government various measures of all sorts which should be taken, as a function of a general development plan, so that the growth of internal trade is continually adapted to the economic level reached by the country.

The internal trade department should promote the step by step rationalisation and modernisation of commercial structures and distribution circuits and prepare the appropriate legal regulations and rules.

Pending eventual administrative centralisation the department will co-ordinate the activities of each of the various services in respect of internal trade. It will draw up its own work programme for the planned objectives and at the same time will organise its own structure and expansion.

Recruitment of the necessary personnel will be a difficult problem particularly in view of the quality required as without skilled staff the project will be doomed to failure.

The carrying out of this programme however, ambitious as it is, not because of the objectives aimed at but because of the difficulties in finding all the necessary resources, should not hinder the immediate administrative aim of getting to know the full extent of the problem.

I - SITUATION ON THE EVE OF THE PLAN

This sector of the economy, although little known, nonetheless plays a considerable part in the economic life of the country. On the eve of the Three Year Plan approximately 230,000 people or more than 5% of the working population were engaged in local trade. It accounted for an incremental value in 1964 of 11,030 million DH, corresponding to 15% of the gross national product.

The structure of internal trade is at present characterised by certain disparities solutions to which will have to be found in the years to come.

Trading systems are very different in the urban and rural sectors. Whether in the numbers of traders, the quality of equipment or the level of incomes, the imbalance in the major towns is striking. It is even more so when compared with the rural sector where points of sale are rare. This has an unfavourable effect on competition, prices and the organisation of distribution networks.

Within the context of this geographical imbalance, distribution is characterised by a high number of retail traders and middlemen. The commercial trade where no qualifications appear to be needed to exercise it attracts large numbers of people. Competition is therefore heavy and investment carried out is difficult to amortise and maintain. Control is also rendered very difficult.

Price movements vary considerably depending on whetherthey concern imported or Moroccan products.

- Customs duties on imported products which often amount to 100% or more have resulted over the past few years in prices of these products being increased.

- With Moroccan products distinction should be made between agricultural and industrial products. The two years of drought which Morocco has just experienced have increased prices of agricultural produce. Prices of industrial products manufactured in Morocco seem to be relatively stable, tending mainly to follow prices of imported products.

These factors of distribution and price are closely linked and the reforms needed should be worked out to take into account the complexities in this field. The modernisation of internal trade will be a lengthy business but should be commenced in the first years of the Five Year Plan.

It should be pointed out in this respect that the Planning Department has available a detailed survey of the distribution circuits for more than 200 products.

II - POLICY TRENDS OF THE FIVE YEAR PLAN

During the period 1968/1972 internal trading will be the subject of thorough studies in order to bring in the necessary distribution structure reforms, administrative organisation and price control.

1 - The structural aspect

Any reform of distribution circuits should be directed towards shortening products' circuits from production to consumption. Removal of some middlemen will be necessary in certain branches. This policy should encourage the setting up of trading chains.

However, the points of sale should not be reduced on too great a scale otherwise the employment situation will be seriously affected. By contrast, the systematic reform of the commercial circuit of certain clearly defined products would be a means to control the accumulation of funds in certain sectors, integrating them with the investment effort, if necessary by a special tax.

2 - The administrative aspect

The possibilities should be examined of regrouping or a closer co-ordination of the State marketing and control organisations, professional bodies, Chambers of Commerce, trade federations, etc...

This is the first prerequisite to enable each organisation to extend its authority into all branches of commerce. The setting up of the Directorate of Internal Trade should encourage concerted action in this field of the economy which at present still lacks proper organisation.

3 - Price policy

Price control in Morocco is faced with many difficulties, both administrative and with the control itself:

- control requires numerous and sufficiently qualified staff to enable it to be carried out effectively.
- generally price control at present is only directed towards the retail sector whereas it should be applied to prices at all stages of the circuit including the production stage.

In order therefore, to achieve a stricter price control system the qualified staff administration should first be strengthened and then legislation should be better adapted to the situation. A return to the 1967 legislation and abrogation of the 1962 Dahir would be quite adequate but this should not be taken as a reversion to freedom of prices.

III - THE TARGETS

It is extremely difficult to draw up target figures for internal trade. We have confined ourselves to indications of trading margins which are shown below.

TABLE I

TRADING MARGINS (in millions of DH)

	1964	1968	1973
	local trade		
Agriculture	755	837	1,050
Food industries	255	288	340
Power	321	387	481
Industry	944	1,080	1,341
TOTAL	2,275	2,592	3,212
	import trade		
Agriculture	144	175	312
Food industries	248	265	174
Power from mining products	35	22	25
Industry	538	678	798
TOTAL	965	1,140	1,309
GRAND TOTAL	3,240	3,732	4,521

Industrial products are predominant (41%) in local trade, then agriculture (33%).

TABLE II

Trade s share of the G.N.P. (in 1,000 DH)

	1964		1968		1973	
	Value	%	Value	%	Value	%
G.N.P.	11,030	100	11,770	100	14,489	100
Value added to importation	850	7.7	996	8.5	1,154	8.0
Value added to local trade	1,696	15.3	1,922	16.4	2,386	16.5

The total value added by commerce which was 2,546 in 1964 will reach 4,540 in 1973.

The value added by local trade, representing 15% of the G.N.P. in 1964, will reach 16.5% in 1973.

IV - THE MEASURES

Modifications of an administrative and legislative nature to be applied during the five year period are mainly concerned with:

- strengthening the administrative organisation
- revision of the Commercial Code
- modification of price legislation

1 - Strengthening of the administrative organisation

a) The Internal Trade Department

This new department, set up in 1966 under the Sub-Secretariat of State for Commerce, has very limited powers, quite inadequate to apply a commercial policy effectively. The Department's staff and its resources should be expanded to make it into an effective organisation; it could consist of the following:

- a "study and liaison" section which would undertake investigations in the sector, draw up specific trade regulations and ensure permanent liaison with professional bodies;
- a "prices" section which would control prices generally, fix the prices of products subject to special regulations and ensure the implementation of these regulations;
- a "commercial affairs" section which would study the specific problems of distribution, stocking, consumer credit, etc..

This strengthening is a prerequisite for any concerted action on internal trade.

The possibilities should also be investigated of co-ordinating the various Ministries which at present share responsibility for price control in order to obtain a centralisation as far as possible of responsibility.

b) The Measuring Instruments Department

Regulations at present governing this department are out-of-date and inadequate. During the five year period royal decrees will be implemented concerning:

- units of measure
- control of measuring instruments,

together with other regulations concerning the structural organisation of this department and extension of its powers.

c) The Department for Suppression of Fraud

The following measures will be adopted during the five year period:

- extending the administrative penalty procedure to certain infringements;
- reducing the delay between discovery of the fraud and the penalty; speeding up legal procedures;
- extending the powers of control agents to enable sales to be suspended pending analysis.

2 - Modifications of a legislative nature

Examination of the structures and practices of internal trade shows that commercial legislation should be reviewed in several respects. Two new factors completely change the context within which the Code of Commerce was drawn up: the increased numbers of traders and modernisation.

New provisions will have to be made, particularly in respect of:

- the need to invoice for wholesale and semi-wholesale sales. This measure will have obvious advantages from the tax point of view. With food products it would be easier to control the condition of stocks and to find the perpetrator of any fraud.
- extending application of taxation on the basis of documentation.

At present, in the majority of cases tax on trading profits is fixed outright, which absolves traders from the need to keep official accounts. The trader's obligation to keep books should now be specified.

3 - Price Regulations

The general level of retail prices benefitted from advantages derived from the progressive industrialisation of the country. However the absence of competition in production sectors monopolised by certain firms can give rise to abuse.

A policy should be defined laying down a choice between customs protection for a monopoly firm and the drawing up, in the case of every industrial undertaking, of a "customs plan", gradually making the firm competitive with imported products or with new firms.

In the immediate future price regulations will be the subject of various modifications.

a) Price control

- Current regulations. The current regulations concerning price control came under the Dahir of 21 November 1957 and the order of the same date for its implementation. These regulations divide goods and services into two categories:

  - Goods and services coming under control, incorporated in the lists A. B and C (attached to the order of the Ministry of National Economy of 30th November 1957), the infringement being defined by article 5, paragraph A of this Dahir.

  - Goods and services not subject to control (article 5, paragraph B).

Considered to be infringements were any increases above previous prices or average prices quoted by competitors, unless such increases are justified by rising costs or by the firm's normal re-stocking.

The second paragraph B was abrogated by the Dahir of 24th October 1962:

"Any direct or indirect price increase should be approved under conditions to be laid down, by the Ministry of National Economy under penalty of infringement".

It is impossible to apply this Dahir. It is also likely to halt the inflow of foreign capital as investors will fear too strict a control by the administration.

- Reforms. With products which are free from control and in view of the difficulties in implementing articles 1-2 of the Dahir of 24th October 1962 logic demands reversion to the former abrogated text, re-establishing article 5, paragraph B of the Dahir of 21st November 1957 and abrogating articles 1-2 of the Dahir of 24th October 1962. The latter shall still apply as far as the other provisions it contains are concerned.

At the same time the list of goods subject to control should be completed in order to retain supervision of the consumer products such as:

- Cement
- Lime
- Paper and board
- Metal packaging
- Cars and lorries
- Batteries
- Concrete iron
- Metallic framework iron
- Glass and bottles
- Textile fibre sacks
- Tinned sardines
- Detergents, etc..

Control of the manufacture of materials and shoes seems to be so complex as to be impossible to institute in view of the diversity of products manufactured.

b) Stock Control

The Dahir of 24th April 1959 relative to reserve stocks, declarations of stocks and to the supression of clandestine stocks, qualifies clandestine stocks (article 4) as stocks of goods hidden in premises other than those which are normally and publically used for carrying out an agricultural, industrial or commercial trade.

Fondouks are used as public storage places for wholesalers engaged in certain trades (sugar, coffee, tea, etc..).

These stocks will be controlled more rigourously.

c) Fruit and vegetable wholesale markets

The conditions under which fruit and vegetables are sold wholesale in towns where there is a wholesale market may appear to be outside any price control. The Ministry of the Interior, however, in order to implement its ruling of 25th June 1962, asked that any diversion of goods from these wholesale markets be considered as an infringement of the Dahir of 21st November 1957 concerning price control.

Whereas:

- the order of 25th March 1965 was not publicised and included no penalties;

- many wholesalers are set up around the Casablanca wholesale market and possibly in other towns where they sell mainly fruit; it is advisable that the following be implemented.

An addition to article 6 of the Dahir of 21st November 1967, laying down an obligation that fruit, vegetables and fish should be sold through a wholesale market.

d) Role of the Penalties Committees

These committees must be consulted when any fine is above 5,000 dirhams. Reference to them, however, is not obligatory when confiscation exceeds this sum and confiscation cannot be incorporated with a fine. This was probably not the intention of the drafters of this law. The present regulation should therefore be replaced by a regulation making consultation obligatory, whenever the total amount of monetary penalties exceeds 5,000 dirhams.

e) Prices committee

Article 6 of the order of 21st November 1957 does not provide for the presence of a representative of the Community Council among members of the Provincial and Prefectural Committees on Prices because the Community Councils had not been set up when the Dahir was published.

This discrepancy should be put right as representation of the Community Council on the Penalties' Committee (article 13 of Dahir of 21st November 1957) was prescribed by the Dahir of 24th October 1962.

CONCLUSIONS ON THE SUBJECT OF TRADE

The five year period which is just beginning will end with a considerable trading deficit resulting in heavy pressure on overseas payments; in the present economic situation this is the price to pay for the country's development.

This, however, by no means implies that we shall passively watch our foreign currency reserves melt away which, unless effective steps were taken, would have serious consequences.

This is why Morocco should "supervise" imports very closely by a selective procedure in relation to the planned economic objectives. This was the purpose of drawing up the lists A, B and C governing our regulations in this respect; as has been seen, however, this austerity measure is by no means incompatible with the policy of liberalisation which remains the target and which presupposes above all reform of the former paralysing administrative procedures. Furthermore a suitable relationship should be maintained between imports and exports, expansion of the latter enabling pressure to be lifted from the former.

Adoption of this system for our overseas trade demands that similar action be taken for home trade in respect of both distribution and prices. Improvement of the one and control of the other will prevent pressure on overseas finances building up which would result in economic and social disorder. Consumption should be adapted exactly to the national income's possibilities and the State should ensure that the balance is achieved and maintained within the framework of social equity and justice otherwise development will falter or simply fail altogether.

Overseas and home trade, therefore, form a whole which should be treated as such both as a cause and effect of economic progress.

KINGDOM OF MOROCCO

PRIME MINISTER

NISTRY OF ECONOMIC AFFAIRS, PLANNING AND
THE TRAINING OF SENIOR GRADES

LANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 10

EDUCATION - OCCUPATIONAL TRAINING AND THE TRAINING OF SENIOR GRADES

MARCH 1968

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LIST OF ABBREVIATIONS

M.E.N.	Ministère de l'Education Nationale (Ministry of Public Education)
M.T.A.S.	Ministère du Travail et des Affaires sociales (Ministry of Labour and Social Affairs)
E.R.I.	Ecole Régionale d'instituteurs (Regional Teaching School)
E.N.S.	Ecole Normale Supérieure (Teachers' Training College)
C.E.P.	Certificat d'études primaires (Certificate of primary education)
C.E.S.	Certificat d'études secondaires (Certificate of secondary education)
C.E.T.	Certificat d'études techniques (Certificate of technical studies)
C.E.T.A.	Certificat d'études techniques agricoles (Certificate of agricultural studies)
C.E.T.C.	Certificat d'études techniques commerciales (Certificate of commercial studies)
C.E.T.I.	Certificat d'études techniques industrielles (Certificate of industrial studies)
U.N.I.C.E.F.	Fonds des Nations-Unies pour l'Enfance (United Nations Childrens' Fund)
B.A.C.C.	Baccalauréat (Baccalaureat)
C.Q.P.	Centre de qualification professionnelle (Professional qualification centre)
C.F.P.	Centre de formation professionnelle (Occupational training centre)
C.A.P.	Certificat d'aptitude professionnelle (Professional Diploma)
D.T.	Diplôme de technicien (Technician's Diploma)
C.P.	Cours préparatoire (Preparatory course)
C.E.	Cours élémentaire (Elementary course)
C.M.	Cours moyen (Medium-grade course)
A.S.	Année secondaire (Secondary year)
H.E.C.	Hautes Etudes Commerciales (Higher commercial studies)
B.D.P.A.	Bureau de développement de la production agricole. (Agricultural production development office)

The following analysis covers all aspects of training, describing them according to two main functional categories: first, general training instruction, primary and secondary education, and secondly, specialised, technical or occupational training and higher education. This distinction is because of the different aims and objectives assigned to each of the two categories by the Government. Finally, incorporation of all aspects of training in one section will give a clearer picture of the achievements made by the State in the field of instruction.

The first category (general instruction) comes almost wholly under the Ministry of Public Education. This Ministry also controls the major proportion of the second category (specialised instruction). Very many types of specialised training, however, are distributed among the occupational training departments of most of the other Ministries, semi-official organisations and private enterprises.

After examining the situation of education, occupational training and the training of senior grades on the eve of the Plan from the quantitative, qualitative and financial points of view, future prospects will then be examined by comparing the needs of the economy at different levels of training with the resources expected from the education and training system.

By learning from the past it should then be possible to lay down the main objectives to be achieved by the education system, both in general education and occupational training during the period of the Five Year Plan, in order that needs and resources be adapted as effectively as possible. The programme's objectives and policies will then enable the equipment programme to be drawn up and also the expected results to be planned. Finally measures of a legal or administrative nature will be recommended.

EVALUATION OF THE THREE YEAR PLAN
AND
THE PRESENT SITUATION

The training of senior grades and occupational training under the Three Year Plan was considered as a prime factor for economic development. Following the policy adopted immediately after Independence, the Three Year Plan continued the main principles of the schooling and university policy.

- generalisation of primary education
- Arabisation
- unification of the education system
- Moroccanisation and training of teaching staffs.

Priority was given to the expansion of the second grade, to the training of senior staff and the system of technical and occupational training had to be revised and standardised.

An evaluation of the Three Year Plan will be made from its qualitative, quantitive and financial aspects.

I - GENERAL TRAINING INSTRUCTION

1.1 - PRIMARY EDUCATION

1.1.1 - Generalisation

Under the Three Year Plan the policy of mass school attendance was continued in accordance with the provisions of the Dahir making education obligatory. This generalisation should be gradually extended to the schooling of children of five and six years of age. The proposed reform provided for establishing an elementary three year cycle for children between 5, 6 and 7 years of age and a public cycle lasting four years. After having been tried out, this project was abandoned in favour of the former system.

After growing very rapidly, primary education became more stabilised under the three year period; Table 1 below shows the schooling figures, by type of education, for the years 1965, 1966 and 1967.

TABLE 1

Pupils attending school under the Three Year Plan

Type of education	1965/66	1966/67	1967/68
Public education Modern and Traditional Arab	1,044,641	1,013,696	1,040,431
Private education Arabised and Ittihad	41,844	37,941	40,456
Pre-schooling education and other private education	37,593	36,757	34,747
Total number of children at school and being educated	1,124,078	1,088,[illegible]34	1,115,634

There are three reasons for this stability:

- basic school attendance has been almost achieved in the large towns and major rural centres;
- stricter application of the regulations on the age of admission to preparatory courses;
- irregular and reticent school attendance by girls and a certain aversion to schooling in the rural areas.

Primary education is now being given to the majority of accessible children. Education will become even more generalised to the extent that the problems posed by the dispersion of housing and school attendance by girls are resolved.

1.1.2 - Arabisation

The Arabsiation of primary education was completed by October 1967, the Arab language having become the language of instruction for all subjects throughout the five years of study. Instruction in French, however, is still maintained in the last three classes at the rate of 8¼ hours a week. The purpose of this is to enable second degree pupils to receive education in the French language for scientific and technical subjects.

1.1.3 - Unification

Unification in primary education is now almost complete and modern sectors in fact have a school attendance rate of more than 92%.

The French and Ittihad types of education are gradually disappearing.

1.1.4 - Moroccanisation

Moroccanisation of first degree teachers is now complete as there are now no more than 100 foreign teachers out of a total figure of 30,000.

1.1.5 - Teacher Training

Training for first degree teachers is provided by 15 Regional Colleges, the numbers varying between 1,000 and 1,250 a year over the last three years. The output of teachers from the Regional Colleges since 1964 only covers 50 to 70% of teacher needs; temporary teachers holding certificates of Secondary Education are therefore employed, who receive their training "on the job".

This is the result therefore of the application of the main principles applied under previous Plans. Though relatively satisfactory from the quantitative point of view, there remain nevertheless two major weaknesses in the primary education system: the drop in the pupils' level of education and the mediocre qualifications of teachers.

The drop in the pupils' level of education

There are many reasons for this:

- the two rapid expansion of primary schooling which required improvement of timetables and structures;

- the shortness of the scholastic year which only comprises some 30 full working weeks, broken up moreover by frequent small holidays;

- reduction in the length of the primary cycle which is now only four years of full time and one year of half time attendance;

- the inadequate qualifications of certain teachers recruited to meet growth needs.

Teachers' qualifications

In view of the considerable number of temporary teachers and instructors the Three Year Plan aimed to improve and widen the level of knowledge of the existing teaching staff. This programme took account of the abolition of the preparatory courses in the public sector (setting up community schools) which would free a number of teachers. This project however, was abandoned and improvement in staff training was organised by means of correspondence and lecture courses. This systems, however, did not produce the results anticipated and the courses were abolished.

These two weaknesses in the primary education system resulted in a drop in output which again caused an increase in the number of pupils dropping out or having to do the course again. The extent of the loss is a burden to the State in respect both of personnel and equipment.

Note: An experiment was made under the Three Year Plan to adapt education to its surroundings. The aim was to adapt programmes to the rural sector mainly by practical agricultural training. The teachers needed were trained at the Mechra Bel Ksiri regional teaching college. This experiment is continuing with the help of the U.N.I.C.E.T.

1.2 - SECONDARY EDUCATION

1.2.1. - School attendance

The three year period was marked by an appreciable increase in the numbers attending second grade glasses. Table 2 below shows the second grade figures for public education divided into general and technical sections (the technical sections are only shown in this table as a reminder and are detailed in the chapter on specialised education).

School attendance figures under the Three Year Plan in the general and technical second grades in the public sector (modern and traditional Arab).

TABLE 2

	1965/1966	1966/1967	1967/1968
First cycle			
General section	150,089	179,731	199,319
Technical section	8,928	8,345	7,086
Total	159,017	188,076	206,405
Second cycle			
General section	17,065	18,111	19,217
Technical section	3,533	4,645	6,428
Total	20,598	22,756	25,645
Total second grade	179,615	210,832	232,050

If the figures for other education (private) are taken into account, the school year 1967-1968 numbered some 270,000 pupils against 210,931 in 1965-1966, or an increase of almost 27%. This increase applies particularly to public education; the various private education systemsin fact are playing a smaller and smaller role, representing some 12% of the total figure. Furthermore the proportion of girls attaining the second grade is increasing each year. The figures of the two cycles, however, are disproportionate: some 91% of second grade pupils attended school in the first cycle. Technical training only represents some 6% of the total figure for the second grade.

Table 3 shows the figures for pupils attending school under general public education during the Three Year Plan.

TABLE 3

Cycles	1965/66	1966/1967	1967/1968
First cycle	150,089	179,731	199,319
Second cycle	17,065	18,111	19,217
Total	167,154	197,842	218,536

1.2.2. - Arabisation

Arabisation is progressing in the second grade and is complete in the Arabised and Traditional Arab sections of public education and also in private muslim education, accounting for more than 28,000 pupils. Furthermore the number of courses given in the Arabic language is continually increasing. Subsequent progress, however, is governed by the progress of Moroccanisation for teachers responsible for scientific subjects.

1.2.3. - Unification

In the second grade unification has progressed very rapidly

- the private Ittihad education is continually diminishing;
- the French based sections in public education are being eliminated;
- the programmes of private Arabised education are now in line with those of public education.

1.2.4. - Moroccanisation of senior grades

At the end of the Three Year Plan Moroccanisation was 50% complete in the second grade (35% of general courses and 90% of administrative courses). But in spite of this achievement, secondary education is still dependent on overseas recruiting for foreign language and scientific instruction. Moroccanisation in fact is being carried out at first cycle level, mainly in the subjects taught in the Arabic language.

1.2.5. - Training of senior teaching staff

One of the main objectives of the Three Year Plan was to train senior teaching staff for the second grade which is a prerequisite of both Moroccanisation and Arabisation. The main instrument for this training is the Teacher Training College. Teachers are prepared here for the first and second cycles. There are more candidates for second cycle teaching posts than for the first cycle (the latter section includes those students not making adequate progress in the second cycle). The output of senior staff, amounting to 1,031 over three years, is till low. Total figures were 1,506 in 1965 and 1,875 in 1966.

Analysis of the figures of student teachers passing through the Teacher Training College gives rise to the folliwng observations:

- a very high proportion of student teachers is in the Arabic language section and studying the arts (1 science student for 7 arts);

- losses over a year are very high (out of 577 first year students in 1964/1965, 150 were left in the third year 1966/1967);

- the number of student teachers actually taking up teaching posts is considerably less than the number of those successfully completing their studies.

. after one or two years of teaching, a number of young teachers are attracted to other branches.

The following conclusions can be drawn from these observations: in spite of an increase in students at the Teacher Training College under the Three Year Plan, the only appreciable results concerned teachers of the Arabic language and to a lesser extent, history and geography teachers.

The training of senior teaching staff has not fully met the objectives laid down under the Three Year Plan as present needs are not being met. Furthermore, the majority of students trained or being trained are in the Arabised arts subjects where needs will rapidly become saturated.

Secondary education thus expanded very rapidly under the three year period. While the quantitative targets were achieved, this was accompanied by a drop in the quality of education and a drop in the standard of teaching staff qualification.

Drop in the quality of education

This drop in the standard of secondary education is due to:

- the low standard of learning of primary school pupils,

- inadequate teaching facilities particularly for scientific subjects (specialised classrooms),

- the lack of qualification of some teachers.

Drop in the standard of teaching staff qualifications

The rapid increase in school attendance and the departure of experienced staff resulted in a massive recruitment of teaching staff who did not always have either the teaching or general qualifications desired. In fact analysis of the numbers of second degree teachers shows that this sector includes quite a high proportion of first degree teachers and masters and other staff with very little teaching experience.

These two factors explain the lower results from secondary education as evidenced by increased numbers having to take courses a second time and a drop in numbers leaving; this is partly responsible for choking the education system. The success rate in examinations is also poor.

II - SPECIALISED TRAINING

2.1 - First cycle technical or occupational training

This training is provided by the Ministry of Public Education and other Ministerial departments.

i - Ministry of Public Education

Under the three year period the Ministry of Public Education provided technical training, preparing students over four years (two years of general and two of technical training) for the technical training certificate (C.E.T.) and for the industrial commercial, agricultural and female certificates. Furthermore a year of additional study after the C.E.T. was organised for certain subjects.

Table 4 below shows by sector the pattern of first cycle technical students under Public Education.

Table 4

Sector	1965/1966	1966/1967	1967/1968
Industrial training	4,879	4,100	3,032
Agricultural training	918	937	763
Commercial training	2,171	2,447	2,573
Female instruction	771	851	728
Total first cycle technical training	8,739	8,335	7,096

The numbers being trained under the first technical cycle are dropping due to the streaming of students in relation to the posts available rather than to theoretical percentages. The breakdown by subject and speciality also shows the predominance of general mechanical engineering (56%) in the industrial section.

The numbers in the commercial section are increasing in relation to the other sectors, girls (61%) outnumbering boys. In the agricultural training sector, numbers are still low, particularly in view of the fact that they are distributed among ten colleges (with an average of 90 pupils per establishment). In the female technical sections 90% are in the domestic arts and sewing, 6% in hair dressing and 4% in community employment.

ii - Ministry of Labour and Social Affairs

The Ministry of Labour and Social Affairs provides occupational training in two fields: industrial and tailoring. Students are recruited at the minimum Certificate of Primary Education level for the occupational training centres and at second secondary year level for professional qualification centres; the tailoring sections recruit at the Certificate of Primary Education level. The period of training is from 12 to 18 months for the industrial sectors and three years for the tailoring sectors.

The pattern of students figures over the three year period is shown in table 5 below.

Table 5

	1965/1966	1966/1967	1967/1968
Industrial sector	818	1,026	1,241
Tailoring sector	550	529	615
Total	1,368	1,555	1,856

The numbers of students has increased regularly and the training centres increased from 10 to 12 in the industrial sector over the three year period.

iii - Training provided by other Ministries

Training centre	Activity	Students
Ministry of Agriculture Agricultural mechanical training centre at Rabat	Level: Certificate of Primary Education and diplomas from the Ministry of Labour schools - duration of study 2 years	100 were trained during the Plan
Ministry of Tourism Hotel training: 2 centres at Restinga-Smir.......... Ben Guerir	Under the responsibility of Tourism and National Defence. First graduates 1966 Military centre for young recruits. Centre opened in 1967	60 students 1200 per annum
Craft-industries A national carpet-weaving school 44 apprenticeship centres	Level: Certificate of Primary Education followed by one year of secondary education	

Comparison of the various training facilities (Ministry of Labour, Ministry of Public Education and other bodies) shows a lack of co-ordination characterised by:

- a certain overlapping some public and semi-official establishments which have created their own training systems alongside the Ministry of Labour and Social Affairs Centres set up for this purpose in many cases to meet more particularly the specific needs of the said organisations;

- identical training organised by various Ministries: technical training provided under Public Education and training provided by the Ministry of Labour; agricultural training by the Ministry of Agriculture and agricultural training again provided by the Ministry of Public Education (the agricultural C.E.T.'s of the Ministry of Public Education do not usually ensure posts for their holders; agricultural mechanical training by the Ministry of Agriculture and by the Ministry of Labour.

- These parallel training programmes are geared to a similar level of employment but are not of the same value: Certificate of Technical Studies issued by the Ministry of Public Education and Certificate of professional qualification issued by the Ministry of Labour and Social Affairs. The attitude of the users of these two diplomas should be given particular attention. Industrialists consider that holders of the C.E.T. have an inadequate practical and general training and that holders of the C.Q.P. have insufficient general knowledge and a too specialised occupational training. In both cases the training received is not suited to the immediate needs of the economy and considerably reduces the chances of internal promotion.

2.2. - Second Cycle Technical and occupational training

Technical and occupational training at second cycle level is provided by several Ministries and organisations:

1 - Public Education provides technical training preparing the student over three years, after the Certificate of Secondary Education, for the industrial technician, commercial, agricultural and hotel trade diplomas.

Table 6 below shows by sector the pattern of student numbers undergoing second cycle technical training over the three year period.

Table 6

	1965/1966	1966/1967	1967/1968
Industrial training	1,182	1,325	2,015
Agricultural training	[illegible]	477	814
Commercial training	1,783	2,320	3,345
Hotel trade training	-	205	254
Total second cycle technical training	3,212	4,327	6,428

The number of students is constantly increasing in all sectors. In the industrial sector students are divided among eight branches, mechanical engineering being predominant (78%). Second cycle commercial training is increasing continually and comprises 75% boys and 25% girls but finding posts for graduates is the cause of some difficulty.

In all sectors and at all levels there are insufficient personnel qualified to give technical courses and Moroccanisation is thus progressing slowly.

ii - Ministry of Agriculture

The Ministry of Agriculture recruits by examination at the 4th secondary year level and trains technical assistants in six schools with two sections. Training is spread over two years. The overall number of students is increasing, rising from 257 in 1965/1966 to 396 in 1967/68. This is still insufficient in relation to the number of establishments.

Systematic study of agricultural training under the Ministry of Agriculture and the Ministry of Public Education shows various discrepancies at different levels. Different training is given for the same jobs: training for technician diplomas under the Ministry of Public Education and technical assistant training under the Ministry of Agriculture. Training appears to be unco-ordinated: students from the first agricultural cycle of the Ministry of Public Education proceed to the technician schools of the Ministry of Agriculture. Finally some training is ill adapted. Graduates trained by the Ministry of Public Education have the problem of finding positions as the Ministry of Agriculture trains its own senior grades at this level.

iii - Training provided by other Ministries

Training centre	Activity	Numbers over the three year period
Craft-industries National Leather and Textile Institute	-Trains instructors -Recruits at C.E.T. level -Duration of studies three years	120 : spinning 33 weaving 39 tanning 18 shoemaking 20 dyeing 10
Training provided by the Ministry of Labour and Social Affairs National Institute for Training Senior Technical Staff, Casablanca	-Trains instructors -Recruits by examination at C.E.T. level -Duration of studies 2 years -Improvement courses for firms' staffs and training of foremen	150

Training centre	Activity	Numbers over the three year period
1 Office Staff Training Centre, Casablanca	-Recruits at 3rd secondary year level. Trains accountants for the private sector	Opened in 1966; numbers trained 40
Training provided by the Ministry of Labour and the Ministry of Administrative Affairs 1 Office Staff Training Centre, Rabat	-Trains office staff for the public sector. -Recruits at 3rd secondary year level. -Duration of study: 11 months	234
Mining and Industry Practical School of Mining, Touissit	-trains geometers and electro-mechanical engineers; -recruits at C.E.S. level -Duration of studies: 2 years	72 during the Three Year Plan
Ministry of the Interior	Trains inspectors 6th secondary year level. Duration of studies: 1 year	42 under the Three Year Plan
Secretariat of State for Planning and Training Senior Grades. National Institute of Statistics and Applied Economics.	-technical assistants	55
Ministry of Public Works The training centres seem to have fully absorbed demand. They will be transformed into further training centres.	-Technical assistants -Aeronautical technicians -National Electricity Board technicians	131 88 129
Ministry of Health	Training given is inadequate. Many training establishments are closed through lack of candidates.	997

III - HIGHER EDUCATION

The overall number of students undergoing higher education was 8,936 in 1965/1966, 7,734 in 1966/1967 and nearly 8,000 in 1967/1968 (provisional figures). The three year period therefore shows no increase in these numbers. This decline however, is only apparent as the following centres have been closed: the training centre for policy advisors, the economic and social development studies centre, the company administration training centre; the legal training centre was also closed. All these closures represent a total of 1,571 students. There were also more than 2,760 Moroccans studying abroad in 1966/1967.

An analysis of higher education will be made, differentiating between education provided by the Ministry of Public Education and that by other departments.

3.1 HIGHER EDUCATION UNDER THE MINISTRY OF PUBLIC EDUCATION

Table 7 below shows for the years 1965 to 1967 the numbers of students at the Mohammed V and Quaraouyne Universities, differentiating the modern and Traditional Arab. It should be noted that students at the Mohammedia Engineering School, the Faculty of Medicine and at the Teacher Training college are included in the figures for higher education on the modern side.

Table 7

Year	Quaraouyne (Traditional Arab)	Mohammed V (modern)	Total
1965/66	497	7,482	7,972
1966/67	482	6,592	7,074
1967/68	500(1)	6,900(1)	7,400(1)
(1) provisional figures			

Analysis of the table shows that 93% of students are pursuing studies at the Mohammed V University. Few students are studying Traditional Arab subjects under higher education and the numbers are static. Holders of the Traditional Arab baccalaureat pass on to other advanced studies which offer better posts. The closing of the Islamic Institute, which supplied Quaraouyne University, through lack of students is prejudicing recruitment at the Traditional Arab University.

Tables 8 and 9 below show the breakdown of students undergoing higher education by faculty and the major schools, for the years 1965/1966 and 1966/1967.

Table 8

Branch	1965/1966	1966/1967
Humanities **Faculty of letters and human sciences**	1,495	1,174
Education **Teacher Training College**	1,516	1,875
Social sciences: Faculty of law **Institute of Socialogy**	3,126	2,082
Exact and natural sciences **Faculty of science**	594	623
Engineering sciences: **Mohammedia College**	270	250
Medical sciences: Faculty of medicine	481	588
Total	7,482	6,592

Table 9 Total number of students at Quaraouyne

Branch	1965/1966	1966/1967
Letters	194	183
Social sciences	303	299
Total	497	482

Study of tables 8 and 9 shows the predominance of literary over scientific subjects. Furthermore 56% of students are pursuing fully Arabised studies in the Teacher Training College Faculty of Letters, Faculty of Law, Institue of Sociology and Quaraouyne University sections.

The teaching body is still under strength and comprises only 45% of Moroccan nationals.

3.2 - OTHER HIGHER EDUCATION

Table 10 shows the numbers of students at specialised schools over the years 1965/66 and 1966/67.

Establishment	1965/66	1966/67
Moroccan Business College	279	295
National Statistical Institute	103	87
School of Mining	55	72
National School of Agriculture	73	82
Laboratory Technicians School	46	-
Total	556	536

Although the figures for these schools are relatively low, the training they give is adapted to the needs of the various departments responsible for this training. Results are generally satisfactory although there is a lack of science graduates (mainly mathematics) from these colleges.

3.3 - The yield from higher education will be analysed more extensively and will be reorganised during the next five years as students will increase considerably in 1971/72. Its present structures do not permit the training of the senior grades the country needs in the required branches and at the levels desired.

IV - FINANCIAL ASPECTS

The investment and functional efforts made by the State in the matters of education, the training of senior grades and occupational training have been considerable. Expenditure on education thus accounts for some 20% of the State budget and 4% of the gross national product. This expenditure has therefore reached the limits generally accepted for that type of expenditure. However, although the credits allocated to the Ministry of Public education are extensive and indicate the importance attached thereto, there is an imbalance in the present distribution of these credits by level and by type of expenditure. The first grade absorbs 57% of credits, the second grade 37% and higher education 6%. This distribution should be modified over the next five years as a function of the foreseeable development of the education system. Finally the share of expenditure on equipment and operating material should be increased as against personnel credits. Financial factors will play an essential role during the Plan. Special attention must be given to their definition and use as the success of the education and training policies depend to a large extent on them.

Table 11 shows the percentage of achievement under the Three Year Plan of the investment credit.

TABLE 11

	Credit available	Allocations	%
Public Education	136,615	91,000	66 %
Agriculture	5,780	1,011	18 %
Labour and Social Affairs	8,000	5,900	74 %
Craft industries	2,218	1,845	83 %
Industry and Mining	431	291	67 %
Maritime Sector	2,694	666	24 %
I.N.S.E.A.	1,131	573	50 %
Military Schools	4,283	3,795	88 %

It should be noted however, that the credit allocated for **education, the training of senior grades and occupational training was 85-100% taken up; the funds available to the Ministry of Public Education, therefore, correspond to actual needs.**

CONCLUSIONS:

A quantitative analysis of the educational training apparatus shows that the results achieved did not fully meet the Three Year Plan forecasts.

- In primary education Moroccanisation of the senior teaching posts has been achieved, the educational systems have been unified and Arabisation is total. With regard to the generalisation of education, the numbers of pupils accepted for preparatory courses seem to have been stabilised. Basic school attendance has been achieved for all available children. The future success of this generalisation of education will depend on the chances of setting up rural schools in regions where housing is dispersed, of reorganising schools with inadequate facilities and replacing them by single-class, multiple course schools and finally of enforcing school attendance by girls

- In secondary education Moroccanisation of the senior teaching posts and Arabisation of the instruction given is progressing slowly but surely. Numbers have increased rapidly during the past three years resulting in a "bulge" in the first cycle.

- Higher education has still not yet reached its critical growth point: its numbers changed little over the three year period.

- The capacities of schools for occupational training and the training of senior grades are sufficient in most cases to meet requirements, except for establishments under the control of the Ministry of Labour and the Ministry of Agriculture.

But although the quantitative analysis is relatively satisfactory the qualitative results, by contrast, are rather worrying. It should be pointed out in fact that the drop in the standard of primary education is now affecting secondary education and , unless remedied, will spread throughout the whole education system; the lack of experience or poor qualifications of many teachers contribute to the drop in scholastic standards. The technical and occupational education provided by the Ministry of Public Education is also ill-adapted and should be reviewed in relation to the economic development. The technical vocation facilities of establishments planned under the "Education" project should particularly be studied before the final section of the work is finished. A change in specialisation may become necessary.

With regard to the other training sectors, the lack of effective co-ordination produces several anomolies. This state of affairs should be remedied and the training of senior grades and occupational training should be standardised.

ASSESSMENT OF THE NEEDS AND RESOURCES
AND
THEIR COMPARISON DURING THE FIVE YEAR PLAN

In order to lay down the Plan's educational and training policies an analysis should first be made of the needs of senior grades and qualified staff, which should then be compared witha the yield from the education and training systems. In this way the conditions can be determined under which the school and university apparatus and the other training systems should adapt, increase or reconvert their education programmes.

Drawing up a balance sheet of needs and resources in respect of training comes up against many difficulties. First because of the unsuitability of the existing statistical facilities for a study of this type. Secondly because of the frequently very theoretical nature of the working hypotheses adopted to determine the needs and of the limited scope of the study which only took into account the needs of certain branches of activities subject to development and transformation and ignored the traditional agricultural and craft-industry sectors. Thirdly because of the impossibility of carrying out a prospective study of the education and training system as this will be modified to some extent. The education and training system was therefore projected over the five year period, with the current rates of loss and turnround being maintained. The result was therefore a simple model, taking account the aging of those already trained with other streams of freshly trained younger elements being continually injected into the education system. Account was taken of the parallel or complementary training provided by the technical ministries. Resources were studied by level, differentiating between graduates and non graduates.

The results obtained should obviously be considered as indications. Calculations of the numbers of those successfully trained was made quite independently from the calculation of needs by projecting a present factual situation and taking no account of future financial restrictions or of possible changes in the structure of the education and training system.

In spite of these difficulties the needs and resources should be compared as this is the only way to determine the policies to be adopted for improving the training and promotion apparatus. Nevertheless the validity of the comparisons made is sufficiently distinct to avoid any decisive conclusions being drawn.

I - ASSESSMENT OF THE NEEDS FOR SENIOR STAFF AND QUALIFIED PERSONNEL DURING THE PLAN BY MAJOR ECONOMIC SECTOR AND BY LEVEL OF TRAINING

1.1 - REASON FOR THE NEEDS

There are three sources of need:

- resulting from economic development;
- resulting from replacement of existing personnel;
- resulting from Moroccanisation.

The overall needs of senior grades and qualified staff for the Five Year Plan 1968/1972 amount to 174,300, including 143,900 resulting from economic development and 30,400 resulting from Moroccanisation.

1.2 - ASSESSMENT OF NEEDS BY MAIN ECONOMIC SECTOR; in personnel and percentage of personnel at the beginning of the period.

Table 1

conomic sectors	Personnel 1.1.68	Increase under the Plan	Replacements under the Plan	Needs during the Plan	% of personnel at start of Plan
ining, Power, Phosphates	37,100	1,600	1,800	3,400	9 %
ransports, Telecommunications	93,600	20,600	8,900	29,500	31 %
ther Industries	127,800	24,200	11,600	35,800	28 %
ervices	35,500	7,900	3,200	11,100	31 %
ommerce, Hotel Industry	7,300	13,500	400	13,900	191 %
ublic Education	48,300	9,300	10,400	19,700	41 %
ther Administrations	130,700	26,100	4,400	30,500	23 %
TOTAL	480,300	103,200	40,700	143,900	30 %

The needs concerned with development and replacement, 143,900, represent 30% of the existing personnel at the beginning of the period in the modern sector (480,000). Thus if the hotel trade sector is excepted in which the considerable needs required are explained by theplanned development of this sector under the Plan, Public Education is he most important sector in its recruitment needs. Although relatively less important compared with the initial personnel, the needs of the industrial and service sectors are nevertheless considerable.

The traditional sector (agriculture, craft-industries, commerce but excluding the National Offices and the classified hotel trade), in spite of its numerical importance - 4,147,000 - was not selected for this survey. The present structure of this sector results in little demand for qualified senior grades. The surplus of resources as against needs in the modern sector will be absorbed to a certain extent by the traditional sector.

1.3 - DISTRIBUTION OF NEEDS BY MAIN LEVELS OF TRAINING

assuming complete Moroccanisation during the Plan and determining the percentage of needs by level.

Table 2

Level	Increase under the Plan	Replacement	Foreigners	Total needs	% by level
igher education level	2,900	1,000	8,000	11,900	7
accalaureat level	13,700	1,900	15,000	30,600	18
.E.S. level	26,900	15,800	6,700	49,400	28
.E.P. level	41,900	8,000	700	50,600	29
ower than C.E.P.	17,800	14,000		31,800	18
Total	103,200	40,700	30,400	174,300	100

i - Needs at lower than Certificate of Primary Education level appear to be very small. This is fully in accordance with the change in the structure of the employment pyramid in the modern sector. In fact demand for unskilled labour in industry and the modern economic sector is generally tending to drop, in favour of qualified and specialised workers.

ii - Needs at middle grade level are considerable particularly at the first cycle occupational training level. No account was taken of the needs of skilled labour likely to be employed overseas.

iii - Study of the employment pyramid indicates a bulge in the subordinate and middle grade posts and a slight deficiency of senior posts. This is due to the fact that many positions are held by personnel with qualifications lower than the position demands.

1.4 - DISTRIBUTION OF NEEDS AND MOROCCANISATION OF EMPLOYMENT

The problem of the Moroccanisation of jobs held for foreigners deserves particular attention. There is no question in fact of the total Moroccanisation of these positions during the Plan, particularly at senior grade level. It would be wise not to consider the positions held by foreigners as new needs but as an adjustable reserve which will enable gradual and effective Moroccanisation to be achieved.

II - ASSESSMENT OF THE RESOURCES OF SENIOR STAFF AND SKILLED LABOUR

2.1. - SOURCE AND DESCRIPTION OF RESOURCES

The qualified staff to meet the needs can only be provided from three main sources: those forming part of the existing personnel resources, those from the re-cycling and professional promotion of workers already qualified to less demanding positions or from training on the spot those who are not sufficiently qualified for their present position and finally from those graduating from the education and training systems.

2.2. - STUDY OF THOSE GRADUATING FROM THE EDUCATION AND TRAINING SYSTEMS

- Method of arriving at these figures.

Comparison of the needs and resources of qualified personnel is made at the moment at the point of entry on the employment market, generally, in other words, when leaving the training or education system. There are important exceptions to this rule, however, in the case of the training provided by certain ministries. Teaching staff is therefore considered to enter into employment as soon as it is accepted by the Regional Teaching Schools or the Teacher Training College. It thus appears under resources at C.E.S. level for Teachers and Baccalaureat level for Second Grade Professors. This means that the needs to be taken into consideration are not those of teachers over the same period.

2.3. - ANALYSIS OF RESOURCES

Study of those leaving the training system shows:

- the numbers at lower than Certificate of Primary Education level, at Certificate of Primary Education level and at Certificate of Secondary Education level.

- the numbers of the failures and non-completion of courses under Primary Education;

- the inadequate resources at Higher level;

- the numbers of students abroad.

2.3. - SUMMARY OF TRAINING

Table 3

	Public education			Other training			TOTAL	Train -ing abroad	TOTAL
	Non Graduate	Graduate	Total	Labour	Agriculture	Mining			
1.1-Engineers		870	870				870	480	1,350
1.2-Degrees		410	410				410	370	780
1.3-Medicine		420	420				420	900	1,320
1.4-Pharmacy Law degree Arts degree Political economy, H.E.C.		2,300	2,300				2,300	700	3,000
1.5-Agriculture diploma		200	200				200	150	350
1.TOTAL HIGHER EDUCATION		4,200	4,200				4,200	2,600	6,800
2.1-Maths Bacc, Exper.Sc.	4,200	3,200	7,400				7,400		7,400
2.2-Arts Bacc, Commercial Technical Diploma	15,000	9,100	24,100				24,100		24,100
2.3-Industrial technical degree Technical Bacc.	1,300	1,900	3,200				3,200		3,200
2.4-Agricultural diploma	600	700	1,300		2,000		3,300		3,300
2.TOTAL BACCALAUREAT LEVEL	21,100	14,900	36,000		2,000		38,000		38,000
3.1-C.E.S.	59,400	15,200	74,600				74,600		74,600
3.2-C.E.T. commercial	3,300	8,500	11,800				11,800		11,800
3.3-C.E.T. tech. C.A.P.-C.Q.P.	4,600	9,100	13,700			100	13,800		13,800
3.4-C.E.T. Agric.	700	2,700	3,400				3,400		3,400
3.TOTAL C.E.S. LEVEL	68,000	35,500	103,500			100	103,600		103,600

	Public education			Other training			TOTAL	Training abroad	TOTAL
	Non Graduate	Graduate	Total	Labour	Agriculture	Mining			
4.1-C.E.P.+ technical training		5,800	5,800	5,700			11,500		11,500
4.2-C.E.P. alone	212,500	108,000	320,500				320,500		320,500
4.TOTAL C.E.P. LEVEL	212,500	113,800	326,300	5,700			332,000		332,000
5.LOWER THAN C.E.P. LEVEL	456,800		456,800				456,800		456,800
GRAND TOTAL	758,400	168,400	926,800	5,700	2,000	100	934,600	2,600	937,200

III - COMPARISON OF NEEDS AND RESOURCES

Analysis of the balance sheet of needs and resources of qualified personnel over the Five Year Plan shows the present problems facing the country in respect of employment and training. This analysis should serve as a means to determine the measures to be taken but it cannot by itself dictate these measures.

3.1. - COMPARISON OF RESOURCES AND NEEDS by major level of training, assuming total Moroccanisation.

Table 4

Level of training	Resources	Needs	Deficit Surplus
1 - Higher education	6,800	11,900	- 5,100
1.1 Law, arts, HEC	3,000	4,500	- 1,500
1.2 Engineers, doctors	3,450	6,300	- 2,850
1.3 Agricultural graduates	350	1,100	- 750
2 - Baccalaureat level	38,000	30,600	7,400
2.1 Maths, Bacc. Exper. Sc.	7,400	5,200	2,200
2.2 Arts Bacc. Commercial, techn-dipl.	24,100	16,900	7,200
2.3 Techn. Bacc. Tech dipl.	3,200	6,700	- 3,500
2.4 Agricultural graduate	3,300	1,800	1,500
3 - C.E.S. level	103,600	49,400	54,200
3.1 C.E.S.	74,600	25,800	48,800
3.2 C.E.T. commerce	11,800	4,300	7,500
3.3 C.E.T. Industry	13,800	17,900	- 4,100
3.4 C.E.T. Agriculture	3,400	1,400	2,000
4 - C.E.P. level	332,000	50,600	281,400
4.1 C.E.P. + techn. training	11,500	31,900	-20,400
4.2 C.E.P. alone	320,500	18,700	301,800
5 - Lower than C.E.P. level	456,800	31,800	425,000
All levels	937,200	174,300	762,900

Comparison of the resources and needs by the five main levels gives rise to the following observations:

i - at higher level: there is a deficit of resources compared with needs. Under the Plan and given the assumptions adopted, 5,000 positions needed at this level, including 3,500 in scientific branches, will not be filled. This scientific deficit 69% of the total, involves specialist positions.

ii - At Baccalaureat level: a summary analysis of resources and needs at this level shows a surplus of resources over needs excluding the technical and industrial branches. This surplus, however, is only apparent. If the resources are analysed they are seen to include a considerable number of non-graudates who will not be continuing higher studies and arts graduates for whom the possibilities are limited.

iii - At other levels: there is a surplus of resources except at the level of certain qualifications. Such a cursory analysis, however, can conceal certain partial imbalances; hasty conclusions should not be drawn from this as far as industrial and commercial training is concerned as account was only taken for these sectors of the needs of the State-controlled sector which are rather uncertain. There is no doubt that if a policy of modernisation in these sectors were pursued, the needs of qualified personnel would be greater than those taken into account here.

3.2. - COMPARISON OF RESOURCES AND NEEDS without Moroccanisation of the posts held by foreigners.

Table 5

	Needs	Resources	Deficit Surplus
1.1 Engineers	1,050	1,350	+ 300
1.2 Science graduates	400	780	+ 380
1.3 Medicine, pharmacy	550	1,320	+ 770
1.4 Law and arts graduates HEC	1,250	3,000	+ 1,750
1.5 Agricultural diploma	650	350	- 300
1. Total higher education	3,900	6,800	+ 2,900
2.1 Maths. bacc. Exp. Sc.	1,600	7,400	+ 5,800
2.2 Arts bacc. Technical, commercial diploma	9,100	24,100	+ 15,000
2.3 Industrial technical diploma, techn. bacc.	3,500	3,200	- 300
2.4 Agricultural diploma	1,400	3,300	+ 1,900
2. Total baccalaureat level	15,600	38,000	+ 22,400
3.1 C.E.S.	23,300	74,600	+ 51,300
3.2 C.E.T. commerce	2,700	11,800	+ 9,100
3.3 C.E.T. industrial	15,400	13,800	- 1,600
3.4 C.E.T. agricultural	1,300	3,400	+ 2,100
3. Total C.E.S. level	42,700	103,600	+ 60,900
4.1 C.E.P. + technical training	31,400	11,500	- 19,900
4.2 C.E.P. alone	18,500	320,500	+ 302,000
4. Total C.E.P. level	49,900	332,000	+ 282,100
5. Below C.E.P. level	31,800	456,800	+ 425,000
Grand total	143,900	937,200	+ 793,300

There is a surplus of resources compared with needs except at higher level and the C.E.S. and C.E.P. levels, for technical and occupational training and for agricultural diplomas.

Comparing the two previous tables, 4 and 5, it may be concluded that resources are adequate for gradual Moroccanisation to be achieved. It may be partial in certain sectors and total in others.

PROGRAMME OF ACTION

The lessons to be learnt from the Three Year Plan and analysis of the needs and resources show the guide lines along which the education and occupational training systems should be directed during the years 1968-1972 and for the post-five year period. Some solutions have merely been outlined and should be studied further during the course of the Plan. The main objectives to be achieved by the education and training systems will be directed towards:

- restoring the quality of education;
- adapting and co-ordinating the education and training systems to the economic and social needs of the country
- recruiting, training and improving the standards of qualified teachers and instructors.

1 - THE MAIN LINES OF THE PROGRAMME OF ACTION

These were studied on the basis of the training system as a whole. The programme's various policies were differentiated by level of training rather than by training organisation in order to indicate the possible co-ordinations and links. These guide-lines will help find solutions to any unbalanced or ill-suited elements in the education and training systems.

1.1 - Certificate of Primary Education level

During the Plan many pupils will be leaving primary schools with no training other than that received there. A knowledge of basic education is essential both for the pupils who will be going into jobs and for those passing on to secondary schools. The priority objective therefore for the primary cycle under the Five Year Plan is improvement in the standard of education.

Improvement will be sought in three ways:

- higher qualifications of teachers;
- action on the duration of studies and on the teaching and scholastic structure;
- adaptation to the social environment.

i - Higher qualifications of teachers

This question will be dealt with in the section concerning the training of teaching staff.

ii - Action on the duration of studies and on the teaching and scholastic structure

To be of value primary schooling demands some 5,500 to 6,000 hours of effective school attendance, whereas at the moment this stands at some 3,500 hours. A series of provisions has therefore been adopted to remedy this situation. They will be the subject of preliminary studies in order that they may be implemented as far as possible under the Plan:

- gradual elimination of half-time attendance at preparatory courses
- elimination of the obstacles to rotation systems in other courses
- reduction in the number of holidays.

An increase in the number of hours of attendance at classes will help to improve the situation but to re-establish a normal duration of adequate schooling the primary cycle should be extended with addition of a sixth year of study; this would enable:

- pupils basic training to be strengthened and rounded off for those not passing on to secondary studies;

- programmes to be adapted to the requirements of a proper preparation for working life;

- preparation for secondary studies to be strengthened.

The 'observation and improvement class', created in 1964 upon admittance to secondary education to offset the deficiencies of primary training will therefore no longer be required and can be eliminated.

In conjunction with the action undertaken concerning the duration of studies, various measures are envisaged for improving the quality and results of primary education.

In respect of teaching:

- revision of programmes, hand books and equipment;
- control of pupils leaving school or following a course a second time in order to control the flow of subsequent inflows;
- more effective control of school attendance, etc......

In respect of school organisation:

- better location of satellite schools;
- opening multi-class courses in under-populated areas;
- setting up or improving school canteens with possible financial participation of parents or local authorities, etc....

Before application, however, the various measures envisaged must be given preliminary study and a thorough analysis in order that the need for them may be justified, if necessary.

iii - Adapation to the social environment

This programme of action aimed at improving the standard of education should be followed up by a series of studies and researcl to adapt primary schools to their surroundings to enable them to play their full economic and social rôles. Rural education experiments have been carried out for the past three years. The results obtained will be thoroughly analysed during the first years of the Plan to enable the primary school programmes to be better adapted to meet the requirements of working life.

iiii - Generalisation of education

In spite of financial constraints and the natural obstacles the generalisation of basic schooling will be continued during the Five Year Plan.

1.2 - Certificate of Primary Education plus occupational training level

This level can be attained by students holding the certificate of primary education or the certificate of primary education plus general training of at least two years in the first cycle of secondary education.

i - Students holding the certificate of primary education or the certificate of primary education plus one year in the first cycle will be accepted by enterprises who will provide them with occupational training. This presupposes acceptance of the principle of obligatory apprenticeship. This obligation cannot be imposed haphazardly; it shall only be applicable after a survey of the labour market situation and introduced gradually. The Ministry of Labour and Social Affairs will be responsible for the modalities of application. Technical studies in this respect are being carried out now and will determine both the level of recruitment and the modalities for instituting obligatory apprenticeship.

ii - Students holding a certificate of primary education and having completed at least two years of the first cycle will be accepted in the training centres of the Ministry of Labour and Social Affairs.

A professional diploma issued by the Ministry of Labour and Social Affairs will validate these studies. This training can be diversified by settingup rural training centres providing practical rural training and education should the preliminary studies show the need.

I.3 - End of first cycle level

Evaluation of the Three Year Plan shows a drop in output atthis level. Furthermore investigations carried out among users show the lack of suitability of certain technical and occupational training.

In order to safeguard the quality of instruction and to raise the basic training standard of skilled labour, the Five Year Plan will:

- improve basic general instruction.
  The four years of first cycle study will constitute one and the same section: the main general training section.

- provide a more selective entrance examination for the second grade.
  Selection on entrance should ensure recruitment of students having the necessary aptitudes; this will avoid the system becoming choked by unsuccessful students having to do the course a second time.

- improve the syllabi.
  Since this programme was outlined the situation in Morocco has changed and a new programme is now needed.

- control the outflow
  Control of 'second-time' students should be more strict to ensure a regular outlfow of successful students thus releasing each year the required number of places for the new inflow.

- teacher qualifications
  This question will be studied in the section relating

The four years of general training will be validated by a certificate of secondary education (1st cycle).

1.4 - End of first cycle plus technical or occupational training level

Students at the end of first cycle level not passing on to the second cycle can be accepted by examination or recommendation in the occupational or technical training sections of the Ministry of Education and other ministries.

i - Industrial and commercial technical training

This training is provided by the Ministry of Public Education and the Ministry of Labour and Social Affairs, each of them having different specialities. The Ministry of Labour with its qualification centres will organise industrial and commercial training, the duration and programmes of which will be determined by agreement with the Ministry of Public Education and the users, under the control of the organisation responsible for the training of senior grades. The Ministry of Public Education will organise at the same level and under the same conditions the industrial and commercial occupational sections needed to fill any deficiencies found in the training systems of the Ministry of Labour or other bodies. Occupational training should no longer be provided with such lack of co-ordination and must take into account the actual needs of the economy as determined by the users in the provincial labour committees (Royal Decree of 8th Joumada 1 - 1287 B.O. of 23rd August 1967).

Co-ordination of these various training systems between the Ministry of Public Education and the Ministry of Labour will still be needed. The rôle of the body responsible for training senior grades is essential as the occupational training provided by the Ministry of Labour and the Ministry of Public Education should be standardised and controlled and should meet specific needs.

ii - Agricultural training

The Ministry of Public Education's C.E.T.A. are ill-suited to agricultural needs; the first cycle agricultural training under the Ministry of Public Education will therefore be abolished with effect from 1st October 1968. Students being trained will continue their studies until they have passed through. Students undergoing training and who obtain the C.E.T.A. will be taken over immediately or after further training by the Ministry of Agriculture as technical seconded agents.

Certain establishments and equipment for which the Ministry of Public Education is responsible could be used by the Ministry of Agriculture.

iii - Female social training

This training has no outlet and will therefore be replaced by practical domestic training courses incorporated in the general female training programmes.

iiii - To sum up:

The specialised training provided at this level will include the 4-year general training provided by the Ministry of Public Education and the technical or occupational training lasting from 9 to 18 months given by the Ministry of Public Education and the Ministry of Labour and controlled by the organisation responsible for the training of senior grades. A professional diploma will mark the successful completion of the studies at this level (C.Q.P.).

1.5 - End of Second Grade of second cycle level

Second Cycle students will be streamed according to their aptitudes either towards the general sections preparing for Baccalaureat or towards tne technical sections preparing for working life.

i - General secondary education

At present students accepted in the general section of the Second Cycle are streamed as soon as they enter their fourth Secondary Year into five distinct groups: Traditional Arab Arts, Modern Arts, Experimental Sciences, Mathematics and the Economic Sciences. Analysis of the results obtained at the end of the fourth Secondary Year shows that this final streaming is premature

At the start of the new school year in October 1968, therefore, these pupils will be divided into two groups: arts and science. Only at the end of the fourth Secondary Year will the final streaming be decided.

Teacher training and teachers' qualifications will be studied in the section concerning the training of teachers.

ii - Second Cycle Technical education

The Ministry of Public Education will continue to train technicians for industry and commerce over a period of three years and at Second Cycle level.

But the location of sections and the contents of syllabi will be reviewed by agreement with the organisation responsible for the training of senior grades, the Ministry of Labour and Social Affairs and the users.

With regard to agricultural training, recruitment to the section coming under the Ministry of Public Education will be abolished at the start of the new year in October 1968. Pupils undergoing training will continue their studies until their groups have completed their training.

Pupils at present preparing for their agricultural technician's diploma who eventually obtain it will be accepted in the Ministry of Agriculture's technical assistans' schools.

The hotel-trade sections will be improved within the framework of the Ministry of Public Education and by agreement with the Ministry of Tourism.

ii - The other ministries and organisations providing specialised Second Cycle technical training will from now on recruit at the final class level (6th secondary year) and will organise one or two years of theoretical and practical courses in order to raise the level and standardise the training provided for technical assistants.

1.6 - Higher education level

i - Higher technical education

A further technical training level between Baccalaureat or technician's diploma and the site engineers level will be set up. This cycle will consist of two years of theoretical and practical studies. Recruitment would be by examination from among industrial or commercial graduates or from science and economics graduates. The higher technical sections however will only be set up provided that preliminary studies show the need for them.

ii - Faculties and Major Schools

In order to meet cultural and human aspirations and the exigencies of economic development, higher education will continue to fulfill its triple mission.

- the distribution of culture
- the training of researchers
- the training of supervisory staff and their constant improvement.

The priority objective is still the training of senior grades. Higher education will therefore be reorganised to fulfill this function although its traditional mission will not be overlooked. It will take the following form:

- training will be directed towards the priority sectors, particularly scientific and technical;
- research will be closely linked with education and production.

In practice this conception will require:

- students being streamed in relation to Morocco's needs;
- the policy of allocating scholarships will be reviewed with this streaming in mind and according to the overall higher education programme planning;
- on the administrative level, the University will be reorganised;
- at teaching level, the present University structures will be revised to provide greater viability.

Higher education will be standardised along similar lines. The structure will be three to four years for senior teaching staff and five to six years for senior planning staff. Any instruction either total or partial found to be unproductive will be abolished. The system of certificates will be replaced where it exists by that of annuities. Finally syllabi will be reviewed and adapted to suit actual needs and the specific conditions of the country.

1.7 - Training of teachers and instructors

The training of first-class teachers is still a vital objective of the Five Year Plan.

1 - At primary education level

The new training system: teaching sections

Raising the present standard presupposes a longer period of general training for future teachers.

To this end teaching sections will be opened in High Schools and Colleges at the beginning of the new school year in October 1968. Recruitment will be by examination from among holders of Secondary Education Certificates and will include two years of general training followed, for the selected candidates, by one year of theoretical and practical teaching training in the Regional Teaching Schools.

The first graduate teachers thus trained at Baccalaureat level will leave the Regional Teaching Schools in June 1971.

Maintenance of the present situation meanwhile will ensure a smooth changeover; the Regional Teaching Schools will continue to train teachers in one year after the Certificate of Secondary Education but candidates having attained a higher level will be invited to take entrance examinations in 1968, 1969 and 1970 and the capacity of the Regional Teaching Schools will be increased.

Furthermore the content of present teaching training programmes and the facilities open to the Regional Teaching Schools will be analysed and improved in order gradually to prepare the new structure for absorbing new inflows.

The needs

The normal teacher training system should set a target of an annual output of 2,000 to 2,500 graduates over the next five years.

The teacher improvement structure

In conjunction with the setting up of a normal training system for future teachers, a permanent system for improving the present teaching force was set up under the Ministry of Public Education. The National Centre, responsible for the systematic improvement of present teachers will carry out preparatory studies in order that courses be organised in a series of regional centres attached to the Regional Teaching Schools. The work programme of this Centre will be as follows:

During the preparatory phase (January to August 1968), the National Centre will organise:

- seminaries for information and consultation;
- a national survey to determine and locate the needs according to each region;

- a conference consisting of the regional officials concerned to determine the content of the improvement syllabus, its duration and the methods to be adopted and also the priority categories and the location of the trial centre offices.

The experimental phase (October 1968 - July 1969) will be devoted to testing the programmes and material adopted on selected groups.

The operational phase will start with the new school year in 1969 and extend over the following four school years. Those undergoing improvement courses will be replaced in their classes by assistant teachers or students for whom the necessary credits will have been allocated. The numbers benefitting from these courses will vary according to the duration adopted but will not be less than 6,000 by the end of the Five Year Plan. Once the results of the surveys and studies are known the possibilities of this new service will be clearer.

Aid will be requested from the U.N.I.C.E.F. and under technical bilateral aid agreements.

The needs

The normal teacher training system should set a target of an annual output of 2,000 - 2,500 graduates over the next five years.

ii - At Second Degree Level

The training of Second Degree teachers is the priority objective of the Five Year Plan's senior grade training programme.

Moroccanisation and Arabisation of the Second Degree demand an output of sufficient numbers of Moroccan teachers qualified to teach all subjects in the First and Second Cycle syllabus.

A normal system will be instituted for this purpose during the period covered by the Five Year Plan.

General training of future teachers will be provided by the University. This will consist of two years of studies in the first cycle for first cycle future teachers and full degree studies for future second cycle te chers . Instruction in the art of teaching will be given in the Teacher Training School, Students successfully completing their first or second cycle studies at University will be accepted after examination at the Teacher Training School to receive their one year's theoretical and practical training.

Temporary provisions

To ensure recruitment of teachers during the transitional period (the next four to five years) one year of teaching training will be provided for candidate teachers having shown satisfactory general training. All teachers, however, should have a practical teaching course before taking up any teaching post.

The opening of teaching sections at 5th and 6th secondary year level can be envisaged for science subjects.

iii - At Higher Education level

The training of University professors presupposes sending a number of the most suitable young graduates abroad. They will have the benefit of a privileged position for a number of years. A long-term policy for the training of professors will be prepared in order to meet the future growth of Higher Education.

iv - Teachers trained by the Ministry of Labour

The need to prepare senior teaching staff capable of promoting personnel already engaged in industrial production demands that the standard of the instructor be reviewed.

The training given by the National Institute at Casablanca will extend for at least two years after the end of the full Second Technical Degree cycle. Recruitment will be by examination. The first year will be devoted to technical improvement in the branch chosen and adaptation to the economic, human and social needs of the enterprise. This improvement will be organised with the help of industrial circles associated with the improvement of occupational training. It will be carried out either totally or partially in local firms.

The second year, open to candidates having shown their aptitude , will be devoted mainly to theoretical and practical training, with studies concerned with human relationships within a working group. In the second year the future instructors will be gradually trained to supervise a section or group of workers to be trained or being given further instruction, after having studied the various methdological and psychological aspects of occupational training. The last term of this teaching year will consist of full time practical courses in the teaching sections attached to the Casablanca Institute.

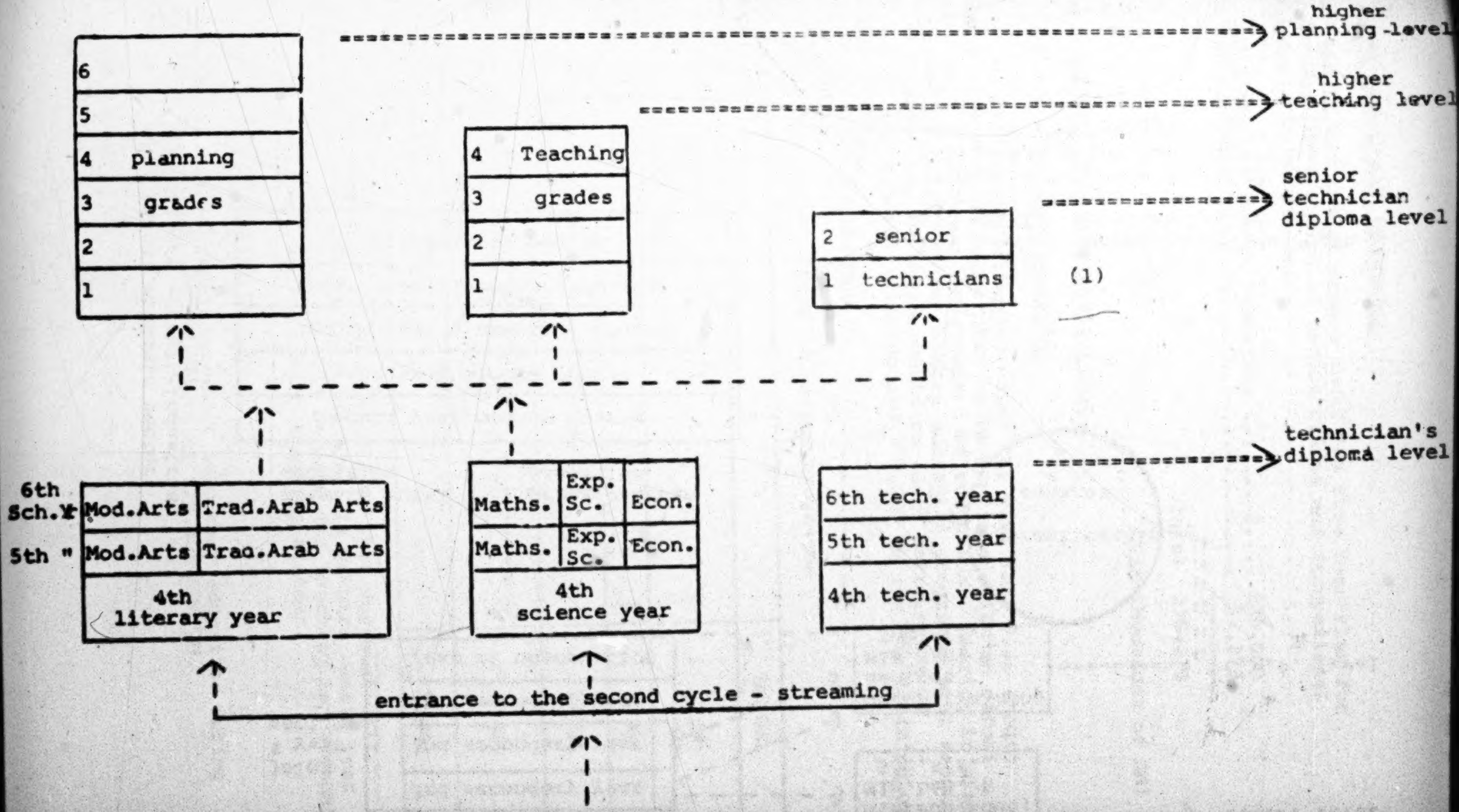
v - Teachers trained by the Secretariat of State for Youth and Sport

The Secretariat of State for Youth and Sport will be training a number of specialised teachers over the five year period, (sports instructors, semi-scholastic activities, youth, popular education, theatre.....). The National Senior Staff Training Institute will be developed and the specialised training facilities co-ordinated and regrouped.

1.8 - Education of mentally retarded and physically incapacitated children

Particular attention should be given to the problems raised by the education of physically and mentally handicapped children, particularly the young blind and mentally retarded. The facilities of the various existing services and organisations will be improved and co-ordinated to provide as effective a system as possible.

ORGANISATION OF THE TRAINING SYSTEMS


higher planning -level
higher teaching level
senior technician diploma level
technician's diploma level
6
5
4 planning
3 grades
2
1
4 Teaching
3 grades
2
1
2 senior
1 technicians
(1)
6th Sch.Yr
5th "
Mod.Arts
Trad.Arab Arts
Mod.Arts
Trad.Arab Arts
4th literary year
Maths.
Exp. Sc.
Econ.
Maths.
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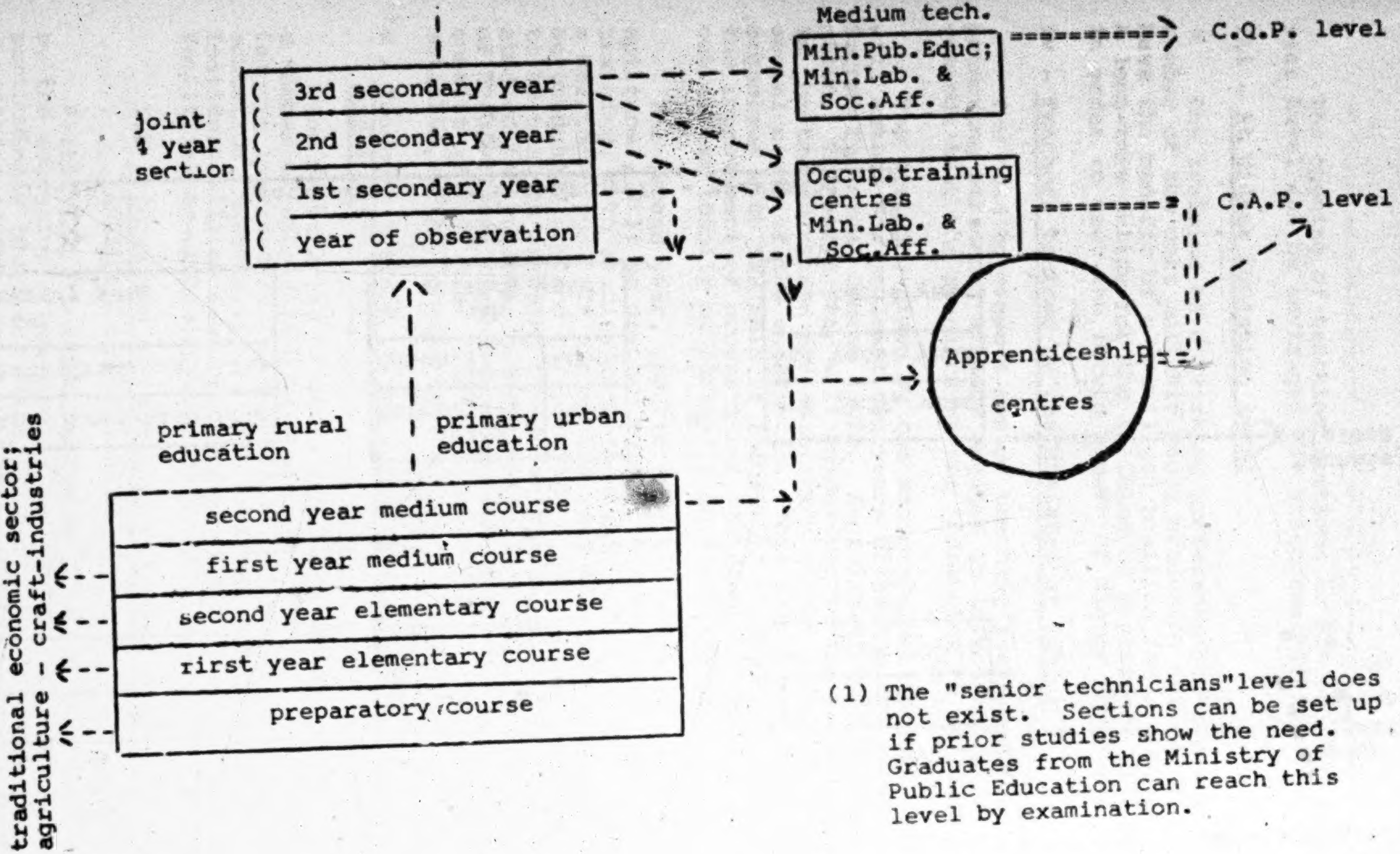
Econ.
4th science year
6th tech. year
5th tech. year
4th tech. year
entrance to the second cycle - streaming


joint
4 year
section
3rd secondary year
2nd secondary year
1st secondary year
year of observation
Medium tech.
Min.Pub.Educ;
Min.Lab. &
Soc.Aff.
C.Q.P. level
Occup.training
centres
Min.Lab. &
Soc.Aff.
C.A.P. level
Apprenticeship
centres
primary rural
education
primary urban
education
second year medium course
first year medium course
second year elementary course
first year elementary course
preparatory course
traditional economic sector;
agriculture - craft-industries

(1) The "senior technicians" level does not exist. Sections can be set up if prior studies show the need. Graduates from the Ministry of Public Education can reach this level by examination.

2 - THE INVESTMENT PROGRAMME

The investment programme under the Five Year Plan for education, the training of senior grades and occupational training will amount to:

Ministry of Public Education	239,000
Special training	37,273
Total	276,273

(in thousands of DH)

2.1 - General Training instruction

2.1.1 - Primary education

The credits incorporated under the Five Year Plan should enable work already undertaken to be continued with an effort being made to improve the standard of education. Bearing in mind financial imperatives the primary education programme will amount to 90,724,000 DH, to which should be added carry-overs of 61,000 DH for special training and 379,000 DH for the training of senior grades.
Total credit : 91,164,000 DH

Five year first grade education programme

Numerical increase	140,000
Number of 40-pupil classes a) for growth b) for improvemed results	 3,500 360
Total classes	3,860
Cost of equipped rooms at approximately 23,500 DH per unit	90,724
Carry-over (senior grade training ((special training	440
Total	91,164

Any numerical increase in excess of that forecast will prejudice an improvement in standards. If numbers remain less than forecast, the balance will be used for teaching improvements, renewing equipment and improving teaching systems.

2.1.2 - Secondary education

The credit incorporated under secondary education during the Five Year Plan period amounts to 126,400,000 DH.

Five year second grade programme

Possible numerical increase	78,750
Number of classrooms	1,968
Scientific equipment	59
Boarders	30
Cost of classes approximately 25,000 DH per unit	49,200
Cost of scientific equipment unit cost 462,000 DH	29,100
Cost of boarders unit cost 840,000 DH	25,200
Various operations	22,900
Total cost	126,400

The investment planned will enable 5,400 boarding places to be created, including 1,800 additions to the "Education" project and 38 new science wings to be built.

These funds will facilitate the conversion of existing high schools to use as second cycle scientific establishments thus increasing the numbers of science students.

Possible investment for increasing numbers in general secondary education is around 49,200 thousand DH.

2.2.- Specialised training

2.2.1 - Technical education under the Ministry of Public Education

Credit allocated to technical education amounts to six million DH and comes under the general credit allocated to second grade education: 126,400,000 DH.

2.2.2 - Ministry of Labour and Social Affairs

The planned investment and equipment credits illustrate the importance given under the Five Year Plan to the occupational training provided by the Ministry of Labour. This investment programme should result in an improvement in the standard of present training, the setting up of new branches: domestic equipment, industrial chemistry, precision engineering, training of qualified instructors and maximum use of the existing establishments and facilities.

FIVE YEAR PROGRAMME

	Cost	Total
Construction of a training centre at Agadir: - buildings - equipment	1,100,000 900,000	2,000,000
Construction of a training centre building in Casablanca - building - equipment	700,000 400,000	1,100,000
Extension of the National Senior Staff Training Institute in Casablanca - equipment	700,000	700,000
Extension of the training centre at Fez - building - equipment	300,000 600,000	900,000
Transformation of the Occupational Training Centre in Marrakesh to a Professional Qualification Centre: - building - equipment	300,000 330,000	630,000
Setting up a multi-purpose workers' training centre for the rural communities - building - equipment	100,000 600,000	700,000
Setting up a social training institute at Rabat:	100,000	100,000
Setting up a Professional Qualification Centre at Kenitra - building - equipment	540,000 810,000	1,350,000
Setting up a Professional Qualification Centre at Mohammedia - building - equipment	490,000 810,000	1,300,000
Training of tailors	200,000	200,000
Total investment allocated for occupational and technical training provided by the Ministry of Labour		8,980,000 including carry-overs

2.2.3 - Ministry of Agriculture

The credits incorporated under the Five Year Plan for agricultural second grade training emphasise the priority accorded this sector. They will enable existing training facilities to be extended and equipped and other sections and centres to be set up. The exceptional extent of investment allocated should enable the agricultural training provided by the Ministry of Public Education and the Ministry of Agriculture to be standardised. The State efforts in this sector should be made profitable and particular attention should be given to implementation of the programme.

Five year programme of the Ministry of Agriculture

Xavier Bernard Agricultural School, Casablanca - teachers' accommodation - laboratory equipment - boarders' equipment	100,000
Meknes Horticultural School - laboratory equipment -modernisation of teaching facilities	100,000
Souilha Agricultural College - teaching accommodation - boarders' equipment - laboratory equipment - operating equipment	150,000
Kenitra Stockbreeding School - dairy buildings - construction of nursery sheds - equipment for laboratories and dissecting room	100,000
Zraib Agricultural College - extension of school buildings -technical demonstration equipment	1,200,000
Rural surveying and engineering school - completion of building work - boarders' and school equipment - new work	1,200,000
Agricultural mechanical engineering school - school buildings and boarders facilities - technical equipment	600,000
Mohammedia School Section, Rabat - all specialised equipment	100,000
Royal Forestry School, Sale - extension - fitting out - school equipment - replacing technical equipment	1,700,000

TRAINING CENTRE, MEDHIA - extension of sanitary facilities - dormitory and buildings - sanitary equipment - replacing boarders' facilities	P.M.
TRAINING CENTRE, SAHEL BOUTAHAR - reconstruction of teaching farm building - livestock - replacing agricultural equipment	100,000
TRAINING CENTRE, TIFLET - construction of road to Tiflet - fitting out buildings - replacing agricultural equipment	50,000
B.D.P.A. Convention	900,000
Courses	1,000,000
Total	7,300,000

2.2.4 - Hotel trade training

The investment credits of 4,483,000 DH incorporated for hotel trade training will be devoted to continuing the efforts initiated under the Three Year Plan. The objective is still the training of top grade senior hotel staff in order to provide the main hotels with qualified staff who can maintain a high reputation for the hotel industry attracting thereby greater numbers of tourists.

These credits will enable the schools at Marrakesh and Fez to be completed and a school at Agadir to be built.

The credits planned for extending the school at Tangiers (3 classes) and modernising the hotel-training school at Rabat are included under Ministry of Public Education credits. (second grade instruction).

Investment Programme

Fez hotel-training school	1,500,000
Marrakesh hotel-training school	1,483,000
Agadir hotel-training school	1,500,000
Total	4,483,000

2.2.5 - Craft-industry training

The credits allocated of 930,000 DH will be used to improve the National Leather and Textile Institute in Fez. This Institute, which is already training technicians, will train senior textile technicians, its capacity being increased by 150 places. This extension, comprising setting up a fourth training year, will be carried out with the aid of the United Nations Special Fund and will represent for Morocco an investment which can be broken down as follows:

- textile equipment	630,000 DH
- laboratory equipment	50,000
	680,000
Contribution in cash 1968	160,000
1969	90,000
	250,000

or a total of 930,000 DH.

2.2.6 - Mining and industrial training

Credits of 100,000 DH are planned for extending the Touissit school which trains geometricians and electro-mechanical engineers.

2.2.7 - Ministry of the Interior training

A credit of 4,950,000 DH is needed to complete building of the Royal Police Academy.

2.2.8 - Ministry of Information

A Journalist Training Centre will be set up with the help of Western Germany (Friedrich Naumann Stiftung). This foundation will offer Morocco senior teaching staff.

- West Germany's share	2,000,000DH	over five
- Morocco's share	500,000DH	years
construction of a building	150,000DH	
Total credit under the Five Year Plan	650,000 DH	

2.2.9 - For many organisations the five year period will be devoted to completing current work (National Defence: 480,000 DH Merchant Marine: 700,000 DH).

For others no new investment will be scheduled during the Plan where existing resources appear to be adequate to meet requirements. Training establishments should be used to their maximum capacity.

2.3 - HIGHER EDUCATION

2.3.1 - Higher education coming under Public Education

The numbers undergoing higher education will increase little over the first years of the Plan. The growth crisis for the education system will reach the University after 1971.

Arrangements should be made immediately to extend existing Faculties and the Major Schools.

Distribution of the credits allocated, 19,436,000 DH, took account of the priorities indicated by the Directorate of Higher Education and former carry-overs (allocation under the Plan: 18,997,000 DH, previous education carry-over 89,000 DH, University carry-over: 350,000 DH). The higher education credits, however, and particularly higher traditional Arab education, should be increased under the Plan in view of the growth of numbers and needs.

(in 1,000 DH)

Establishment	Distribution
Teacher Training School, first section	7,800
Faculty of Medicine, first section	5,100
Engineering School	2,539
Faculty of Science	2,000
Faculty of Letters	780
Faculty of Law	574
C.U.R.S.	100
Institute of Sociology	104
Carry-overs	439
Total	19,436

2.3.2 - Higher education other than under Public Education

Ministry of Agriculture:

The amount of expenditure scheduled in this agricultural sector under the Plan amounts to 5,700,000 DH for higher education.

Planned Work Programme

	Cost	Total
National Agronomic Institute, Rabat		
- boarders' extension	1,800,000	
- boarders' equipment	600,000	
- laboratory equipment	300,000	2,700,000
National Agricultural School, Meknes		
- building	1,800,000	
- office and boarders' equipment	200,000	2,000,000
B.D.P.A. Convention	1,000,000	1,000,000
Total		5,700,000

Industry and Mining

A credit of 400,000 DH is allocated for the completion and equipment of the Rabat Mining School.

Secretariat of State for Planning and the Training of Senior Grades

The credit allocated for the improvement and extension of statistical equipment amounts to 1,900,000 DH. The Moroccan share in the Special Fund is 800,000 DH.

3 - SUMMARY OF PUBLIC INVESTMENT

Ministry of Public Education

Before preparing a summary of public investment by the Ministry of Public Education, the cultural and administrative equipment of this Ministry should be examined.

Cultural equipment: The credit allocated for this sector should ensure protection of Morocco's historic and cultural heritage (historic monuments, archeological sites, archives, maintenance of buildings) and encourage a distribution of culture (houses of culture).

- credit allocated to cultural affairs: 2,000,000 DH.

Administrative equipment: The increase in school attendance figures necessitates management and control authorities which are better equipped to achieve greater efficiency. The present Ministry buildings are too small. Some departments are housed in veritable cellars where there is no room to work. Regional administration should therefore be improved. Certain delegations are without offices at all.

- credits allocated for administration:

central administration	600,000 DH
regional administration	400,000 DH
Total	1,000,000 DH

Summary of credits allocated to Public Education

First grade education	91,164,000
Second grade education	126,400,000
University cultural activities	21,436,000
Total	239,000,000

If account is taken of the fact that a credit 1,000,000 DH is incorporated for administrative infra-structure the credit allocated to the Ministry of Public Education during the Plan amounts to 240 million DH.

PROBLEMS CONCERNING OBTAINING THE BEST VALUE FROM INVESTMENTS

The extent of the investment allocated and the operations which will be carried out presuppose various measures being adopted to enable the targetted objectives to be achieved. In the technical field, therefore, studies should be undertaken to standardise and industrialise school buildings in order to obtain maximum quality installations, the most effective utilisation and at the lowest cost. With regard to selecting the education programmes and utilising the land needed for equipment, general measures should be adopted to avoid speculation. Finally the procedures for establishing school building programmes should be streamlined.

The State's investment efforts in education considerably exceed the credits allocated. In fact, repercussions from the schooling and university policies of the Five Year Plan place a heavy burden on operating expenditure.

Repercussions on operating expenditure

In 1967, operating credits were around 510 million DH and in 1972/1973 they will reach a total of 723,523,000 DH provided financial resources permit.

General Public Education Budget

(in 1,000 DH)

	1968	1969	1970	1971	1972	total
Operating	558,554	599,885	640,131	680,977	723,523	3,203,070
Equipment	55,947	54,000	49,577	39,640	39,836	239,000
Total	614,501	653,885	689,708	720,617	763,359	3,442,070

N.B. Included in Public Education investment credits are 1 million DH for administrative infra-structure. Credit allocated under the Plan to the Ministry of Public Education is 240 million DH.

SUMMARY OF INVESTMENT

MINISTRY OF PUBLIC EDUCATION

	1968	1969	1970	1971	1972	Total
Primary education	16,716	18,000	19,000	18,000	19,008	90,724
Secondary education	34,425	31,508	26,377	17,390	16,700	126,400
Higher education and Universities	2,986	1,992	2,100	2,250	2,308	11,636
Training of senior grades Regional schools Teacher Training schools Special training	1,020	1,500	2,000	2,000	1,720	8,240
Cultural affairs	800	1,000	100	-	100	2,000
Total	55,947	54,000	49,577	39,640	39,836	239,000

N.B. The administrative investment corresponding to improvement of the education system, or 1 million DH, is incorporated under Section 16: "Administrative Facilities".

SPECIAL TRAINING

MINISTRY OF LABOUR AND SOCIAL MATTERS

	1968	1969	1970	1971	1972	Total
Building a Professional Qualification Centre at AGADIR	800	1,200	-	-	-	2,000
Building a Professional Qualification centre at CASABLANCA	-	-	300	400	400	1,100
Extension of the National Senior Staff Training Institute at CASABLANCA	280	250	170	-	-	700
Extension of the Professional Qualification Centre at FEZ	300	600	-	-	-	900
Transformation of the Occupational training centre at MARRAKESH into a Professional Qualification Centre	-	-	230	200	200	630
Setting up a multi-purpose workers' training centre for rural communities	-	-	300	200	200	700
Setting up an Institute for Social Training, RABAT	-	-	50	50	-	100
Setting up a Professional Qualification Centre, KENITRA	-	-	400	400	550	1,350
Setting up a Professional Qualification Centre, MOHAMMEDIA	-	-	400	400	500	1,300
Tailor training centre	-	-	100	100	-	200
TOTAL	1,380	2,050	1,950	1,750	1,850	8,980

MINISTRY OF AGRICULTURE

Higher education National Agronomic Institute, RABAT	2,400	300	-	-	-	2,700
National Agricultural School, MEKNES	1,200	800	-	-	-	2,000
B.D.P.A. Convention (1)	130	240	240	195	195	1,000
Secondary education Xavier Bernard School, CASABLANCA	-	50	50	-	-	100
Horticultural School, MEKNES	-	50	-	50	-	100
Souilha School	-	50	-	100	-	150
Stockbreeding School, KENITRA	-	-	50	-	50	100

(1) Agricultural production development office

	1968	1969	1970	1971	1972	Total
Zraib Agricultural School		800	300	100		1,200
Rural Surveying and Engineering School	620	580				1,200
Agricultural Engineering School		400	200			600
Mohammedia School Section, Rabat			50		50	100
Royal Forestry School, Sale	700	500	500			1,700
Training Centre, Media	-			-	-	P.M.
Training Centre, Sahel Boutahar	-	50	50	-	-	100
Training Centre, Tiflet	-	-	50	-	-	50
B.D.P.A. Convention	130	230	230	155	155	900
Training Courses	100	200	200	200	300	1,000
Total	5,280	4,250	1,920	800	750	13,000

CRAFT-INDUSTRIES

Leather and Textile Institute, Fez	520	410				930

INFORMATION

Journalist Training Centre, Rabat	100	150	200	200		650

MINING AND INDUSTRY

School at Touissit	25	25	50			100
Mining School, Rabat	100	100	100	100		400
Total	125	125	150	100		500

MARITIME SECTOR

Naval School	700					700

I.N.S.E.A.

I.N.S.E.A.	350	450	500	600	700	2,600

MINISTRY OF THE INTERIOR

	1968	1969	1970	1971	1972	Total
Royal Police Academy	750	900	1,050	1,050	1,200	4,950

NATIONAL DEFENCE

Military Schools	480					480

HOTEL TRADE TRAINING

School at Fez	1,000	300	200			1,500
School at Marrakesh	883	400	100	100		1,483
School at Agadir		300	200	400	600	1,500
Total	1,883	1,000	500	500	600	4,483
TOTAL SPECIAL TRAINING	11,618	10,435	5,970	4,650	4,600	37,273

SUMMARY

EDUCATION AND SPECIAL TRAINING

Ministry of Public Education	55,947	54,000	49,577	39,640	39,836	239,000
Special training	11,618	10,435	5,970	4,650	4,600	37,273
Total	67,565	64,435	55,547	44,290	44,436	276,273

4 - TRAINING PROSPECTS DURING THE FIVE YEAR PLAN

4.1 - Education coming under the Ministry of Public Education

4.1.1 - Primary Education

The possible numbers in first degree education between 1968 and 1972 were assessed, taking into account budget possibilities - both operating and investment.

Account was taken of improvement in the standard of teaching which took the form of an 10% increase in the cost per pupil. The numerical strength of public primary education at the end of the Plan would amount to approximately 1,200,000.

Basic schooling would therefore reach some 230,000 7 year old children every year.

4.1.2 - Second grade education

The figures forecast for public education will rise from 230,000 in 1967 to 309,000 at the end of the Plan, or an increase of 79,000 pupils over the next five years. The acceptable figures were calculated as a function of the credits available and the cost per pupil over the 1968/1972 period.

The hoped for increase in the science strength will involve an appreciable increase in cost over the period of the Plan.

4.1.3 - Higher education

Taking into account the output estimates over the next three years, the annual increase adopted is 500; this will raise the higher education strength to some 10,500 at the end of the Plan.

4.2 - Education coming under other organisations

4.2.1 - Ministry of Labour and Social Affairs

Credits allocated to the Ministry of Labour should increase present capacity in the industrial sector from 1,220 students to 1,700.

Training prospects (1)

	1968	1969	1970	1971	1972	Total
Industrial sector	1220	1400	1600	1700	1700	7620
Tailors	755	755	755	755	755	3775
Total	1975	2155	2355	2455	2455	11395

(1) Figures were calculated on the basis of establishments being used to maximum capacity. The training of some 150 instructors at the Institute for Training Senior Technical Staff at Casablanca should be added to the previous figure.

4.2.2 - Ministry of Agriculture

The extensive credits incorporated under the equipment budget for the Ministry of Agriculture's training programme will ensure the training of the following senior grades under the Plan (see table below). The Ministry of Agriculture's needs however will not be met by the number of senior grades trained.

Training prospects

Level	1968	1969	1970	1971	1972	Total
Design engineers	20	27	37	35	43	162 + 3 soldiers
Site engineers	17	32	39	51	57	196
Technical assistants	344	353	260	335	370	1,662
Total	381	412	336	421	470	2,023

4.2.3 - Hotel trade training

Training facilities in the hotel industry will not satisfy needs during the five year period. Some 1,170 staff will have to be given special training.

Training prospects

	1968	1969	1970	1971	1972	Total
Middle grade staff	30	110	90	110	290	630
Sundry training prospects						1,170
"On the spot" training prospects (Ben Guerir)						6,200
					Total	8,000

4.2.4 - Craft-industry training

The credits incorporated will allow the National Leather and Textile Institute to increase its training capacity from 150 to 300 and the Weaving School at Sale to train 20 to 30 workers a year. Apprenticeship centres will train 20-30 apprenticeships and the training centre at El Hajeb 200.

Training prospects

	1968	1969	1970	1971	1972	Total
Technicians	20	25	30	30	30	135
Apprenticeships	600	650	650	700	750	3,350
Total	620	675	680	730	780	3,485

These results were calculated by extrapolation of the training possibilities.

4.2.5 - Mining and Industry

The training prospects were calculated in relation to possibilities and the credits allocated.

Training prospects

Level	1968	1969	1970	1971	1972	Total
Mining School assistant engineers	30	30	35	35	35	165
Touissit School, skilled workers	25	25	30	30	30	140
Khouribga	15	15	20	25	30	105
Total	70	70	85	90	95	410

4.2.6 - Youth and Sport

Training prospects were calculated as function of needs.

	1968	1969	1970	1971	1972	Total
Higher level	5	5	5	5	4	24
Instructors	28	31	31	30	33	153
Trainers	70	70	70	70	71	351
Total	103	106	106	105	108	528

The credits needed for training youth and sports senior staff are included under the Youth and Sports Department credits. They are not included in this study.

4.2.7 - Secretary of State for Planning and the Training of Senior Grades

Approximately 50 statistical technicians and 100 technical assistants will be trained during the Plan.

4.2.8 - Ministry of the Interior

Training prospects

Level	1968	1969	1970	1971	1972	Total
Assistant administrators	55	58	60	62	65	300
Secretaries Clerks	15	15	15	15	15	75
Communications staff	260	260	260	260	260	1,300
Public Agents	48	50	50	50	50	248
Total	378	383	385	387	390	1,923

4.2.9 - Public Offices

Senior staff were calculated as a function of possibilities.

	1968	1969	1970	1971	1972	Total
School of Administration	90	90	90	90	90	450

4.3.0 - Ministry of Health

The Ministry of Health will train during the Plan
- 400 nursing graduates
- 400 technicians
- 2,000 state registered nurses

Training was calculated taking into account the capacities of the training establishments and the priority needs.

In respect of other training provided by the public organisations which have not been reviewed here and for which no investment is provided, it may be considered as operating as a function of its specific needs. Some of these training facilities serve to provide refresher and improvement courses for personnel.

With regard to the training organised by private enterprises no occupational training programme has been laid down for the five year period. Firms will arrange their own needs. A co-ordination of these efforts would doubtless produce better results. The organisation responsible for the training of senior grades will study, in collaboration with the appropriate trade representatives, the possibility of co-ordinating occupational training schemes between the public and private organisations.

THE MEASURES TO BE ADOPTED

Preparatory studies for the five year Plan 1968/1972 showed the need to adapt and standardise the education and training policies to the needs of the economic development and national realities. Achievement of these objectives presupposes a revision of the school and university system, reorganisation of the occupational and technical training apparatus and co-ordination and control of all activities.

Application of these measures will depend to a large extent on the framework within which the programmes and administrative regulations will be drawn up for implementation and co-ordination among the various Ministries in the field of education.

Specific bodies should therefore be set up and regulations of a legal, administrative or financial nature be implemented.

I - SETTING UP SPECIALISED BODIES UNDER THE MINISTRY OF PUBLIC EDUCATION

1.1 - THE ROYAL TECHNICAL COMMITTEE ON EDUCATION

A Royal Technical Committee on Education, the main role of which will consist in studying the means to be adopted for achieving the options selected in the programme of action and for adjusting the school and university system to the targets adopted by the Plan 1968-1972, will be set up. This Committee's task will be to study the programmes, teaching structures, methods, school charts, the training and improvement of teaching staff, administrative structures, the problems relating to obtaining the best value from investments, planning measures, problems of a social nature, etc.....

The Royal Technical Committee on Education will bring together representatives from the departments directly concerned by its mission:

- representatives of the Ministry of Public Education
  - The General Secretariat
  - the Directorate of Scholastic Activities
  - the Directorate of Higher Education
  - the Directorate of Cultural Affairs
  - the Directorate of Administrative Affairs
  - the Planning Division
  - the Equipment Division
  - the Research and Teaching Programme Division.
- representatives of bodies other than the Ministry of Public Education
  - the Directorate of Planning
  - the Training of Senior Grades
  - the Exchequer
  - the Public Offices(where budgetary and statutory problems are concerned)

This Technical Committee will be under the chairmanship of the Ministry of Public Education.

In order to carry out its mission the Technical Committee will dispose of:

- the means of action available to each of the departments represented;

- specific facilities to be placed at its disposal to enable it to undertake studies, research and specialised work.

1.2 - The Consultants Training Centre

The success of any policy for the guidance of pupils and students presupposes the existance of qualified senior staff. In order to train this skilled staff, the Consultants Training Centre will be reorganised.

1.3 - The Applied Research and Study Teach Centre

In order to draw up programmes, methods, hand-books, to prepare equipment and teaching documentation, to prescribe examination marking and the streaming and selection systems, a teaching research organisation will be set up.

2 - THE BODY RESPONSIBLE FOR THE TRAINING OF SENIOR GRADES AND OCCUPATIONAL TRAINING

This organisation, the role of which will be vital during the 1968/1972 Plan, will be reorganised to enable it to play its full part in co-ordinating, controlling and stimulating in the field of education, occupational training and the training of senior grades. It is the permanent body responsible for the general structure of training facilities and their continual adaptation to the dynamic needs of the Nation.

The organisation responsible for training senior grades and for occupational training will carry out the Government's programme in the fields of training senior grades, occupational training, bilateral or multilateral cultural and technical aid, guidance of pupils and students, allocating and controlling scholarships, home or overseas grants (higher, secondary, technical and general education), controlling courses, refresher courses and re-cycling.

This organisation will consist of four departments:

- a Study Department;
- a Technical and Cultural Aid Department;
- a Streaming and Scholarship Department;
- an Administrative Department.

- The Study Department will be responsible for ensuring liaison between the various occupational training services of the other ministries and organisations and for examining all the studies concerning the training of senior grades and occupational training.

The Streaming and Scholarship Department will be responsible for co-ordinating and controlling the streaming of pupils and students towards the various training levels, according to needs, and for instituting the necessary means for allocation of scholarships and grants.

The Technical and Cultural Aid Department will be responsible for investigating and co-ordinating all bilateral and multilateral aid.

3 - REGULATIONS

Regulations laying down the policy to be adopted under the Plan are being prepared. The essential elements of these regulations are as follows:

- Directing training towards Morocco's priority sectors will be reinforced after Secondary Education.

Both during and on completion of their studies in secondary and higher education programmes, pupils and students of Moroccan nationality will obligatorily be directed towards these trades given priority under the Plan. Pupils and students unsuited to the type of education they are receiving will be restreamed during schooling towards another type of education better suited to their aptitudes.

Registration in teaching or technical higher training establishments will be subject to this policy of direction.

Allocation of scholarships will be a function of this streaming. The organisation for allocating scholarships will be governed by official regulations.

KINGDOM OF MOROCCO

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DEVELOPMENT BY SECTOR

CHAPTER 11

YOUTH AND SPORTS

MARCH 1968

YOUTH AND SPORTS

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The Three Year Plan 1965-1967 specified a period of reflexion and reorganisation for the Department of Youth and Sport and the five year period 1968-1972 will thus begin a new phase and provide solutions to the youth problem. Future projects will be started under the best conditions.

I - EVALUATION OF THE THREE YEAR PLAN AND THE PRESENT SITUATION

The credits allocated for youth and sports under the Three Year Plan amounted to 4.8 million DH; with the addition of the 2 million DH carry-overs from the Five-Year Plan 1960-1964, the opening credit amounted to 6.8 millions for the period 1965-1967.

The table below shows the extent of the implementation of the Three Year Plan at 31st December 1967. Allocations amounted to 2.9 million DH, or 43% of the credits available. Commitments would amount to 6.3 million DH, or 93% of the credits available.

TABLE 1

IMPLEMENTATION OF THE THREE YEAR PLAN

(in 1,000 DH)

	Available 1965/196	Situation at 31.12.67			
		Allocations	% of allocations	Commitments	% of Commitments
Youth	2,983	1,820	61	2,897	97
Popular education and Feminine Promotion	2,035	875	43	2,014	99
Sport	1,787	239	14	1,394	70
TOTAL	6,805	2,934	43	6,305	93

At present Morocco has 12,500 places at holiday camps and sites; 850 beds for the re-education of juvenile delinquents; 236 establishments where part of the work is adapted specifically to extra-curricular activities both male and female. And finally although sports grounds are fairly numerous the equipment there (competition, swimming pools, sports rooms, multi-sports stadia) is inadequate. 2 skiing stations complete these installations.

II - POLICY TRENDS AND OBJECTIVES OF THE PLAN

The Five Year Plan aims to improve the present situation in respect of youth and sport. The programme envisaged will involve a new approach compared with previous Plans. Account will be taken in the specific sectors concerned of the various problems involved, with the constant overall aim:

- first of integrating youth activities into the national community;

- secondly of completing their education by adapting them to their environment and social functions;

- finally of providing them with leisure and physical training facilities, the use of which will bring to the forefront those capable of representing Morocco in international competitions.

This programme of action should be supported by similar efforts by the local communities. The Plan should provide encouragement for the voluntary participation of local populations both in implementing projects and in their subsequent operation.

The work of the Department of Youth and Sport will aim first to complement the work of the schools by encouraging the organisation of leisure activities of a socio-educational nature. Secondly it will aim at encouraging training programmes for adolescents, both in urban and rural areas, to give them a better start in life. These schemes will meet the needs of the various categories of youth, starting with the most urgent such as the need to protect and re-train the maladjusted.

In the field of popular education the Secretariat of State for Youth and Sport will make a wider distribution of cultural and social facilities to encourage the development of the country and the fulfillment of individuals. In respect of Feminine Promotion the main objective will be to educate women to their new responsibilities both within their own homes and in their community activities.

The need for the country to be represented in international sporting events and the desire to provide youth with the essential physical training facilities presuppose that a programme of sporting equipment be carried out. Apart from traditional sports, for which the five year programme will improve the infra-structure, considerable efforts will be made to provide open-air facilities both for sporting and touristic activities.

III - PROGRAMME OF ACTION

Achievement of the five year programme presupposes implementation of a series of measures in respect of both staff and financial resources.

The financial resources allocated to the Secretariat of State for Youth and Sport are a considerable improvement on the credits allocated under previous Plans, 20.3 million DH are in fact incorporated under the Five Year Plan, against 9.8 in 1960-1964 and 4.8 in 1965-1967.

Equipment credits which have a considerable repercussion on the operating budget can be broken down as follows (in thousands of DH).

Youth	8,056
Popular Education and Feminine Promotion	3,811
Sport	7,894
Administrative Facilities	550
Total	20,311

Thus 550,000 DH are allocated to Youth and Sport for this department's administrative building at Al Hoceima and Tangiers. The credits are incorporated under the section "Administrative Facilities".

1 - Youth

1.1 - Objectives of the Programme

a) Organised youth

The purpose of youth movements and associations lies in offering youth the educational facilities suited to their needs and interests. A training programme for voluntary unpaid staff will therefore be instituted in order to facilitate extension of this work. Furthermore organised youth should also be associated with the major national projects. An annual programme will be drawn up for this purpose in order to make training groups aware of the activities in which they may take part and in which case they can claim special aid.

b) Unorganised youth

Whilst not attempting to reach immediately the great mass of youth the programme adopted will be designed first to improve the protection and extra-curricular education of youth. This will be achieved first by means of legal measures and secondly by extending reception centres. The number of places available in holiday centres will therefore be considerably increased. At the same time youth hostels will be improved by modernisation and by increasing the scope of present reception facilities. Finally, particular attention should be given to the sectors concerned with the major development projects. Efforts will be made particularly in these sectors to promote general youth training schemes. Mobile camps will also be organised in order to direct the initiative and interest of youth towards an awareness of and an effective participation in current projects.

c) Delinquent and maladjusted youth

In co-operation with the legal authorities the Department should take steps to resolve the problem of the increasing incidence of juvenile delinquency. By a 50% increase in the capacity of the Observation and Rehabilitation Centres this increase in delinquency can be contained. Nevertheless centres should also be set up under regional jurisdictions capable of effectively implementing court decisions.

d) Youth and tourism

In order to encourage international youth relations and to assist the tourist development effort, particular attention will be given to the reception of educational tourist groups. In this respect the staff training schemes and development of the reception facilities will improve the viability of these operations and prepare the way for future tourism.

1.2 - The equipment credits for youth can be broken down as follows:

	(in 1,000 DH)
Holiday camps and town centres	1,086
Supervised educational centres	6,030
Youth hostels	400
Initial expenditure on the socio-educational centre at Agadir the pilot Community Youth hostels	300
Vehicles	240
Total	8,058

2 - Popular Education and Feminine Promotion

2.1 - Objectives of the Programme of Action and the facilities envisaged

The objective of the popular education project is a more widespread distribution of education, the beneficiaries receiving an education in accordance with the necessities of modern life and the main principles of the national way of life.

These schemes should help in halting the drift from the land and promote an understanding of national development efforts, preparing in fact community activities and others for participation in Morocco's cultural and technical projects. This programme, which needs operating funds rather than equipment, will be geared to the popular educational centres.

The socio-educational work of the Feminine Promotion will also be given further encouragement during the five year period 1968-1972. This will not so much involve setting up new feminine centres as increasing the facilities of the existing centres by reorganisation, recruitment and the recycling of senior staff. Senior grades will participate in the national family planning campaign in collaboration with the staff of advisors specially trained for this purpose by the Ministry of Public Health. Feminine centres will also be the mainstays of national campaigns, be used as conference centres and as offices for family planning associations. Similarly mobile centres will assist the development programmes by organising volunteers for rural advisory services.

2.2 - Equipment budget

The equipment credits under Popular Educationand Feminine Promotion are broken down as follows:

	(in 1,000 DH)
Building two socio-educational centres	1,710
Fitting out a miniature theatre	460
Building a reception centre	200
Other equipment credits for popular education	471
Building Five Feminine Promotion centres	970
Total	3,811

3 - Sport

3.1 - Objectives of the Programme

The programme of action aims at providing an increasing proportion of youth with physical training in accordance with its needs and at providing sports equipment and training programmes by means of which the most talented can train more intensively to represent Morocco in the major international competitions. The two aspects of the action programme, mass sports and training an elite, are in fact linked together; discovery of an elite demands as widely based an effort as possible and champions' performances also encourage the incentive of the masses.

Implementing the programme of action will take time and the effects will only begin to be felt at the end of the Plan. The objective aimed at will consist in:

- providing multi-purpose equipment and facilities for major competitions;

- allocating extensive credits to youth training, reserving the necessary funds for top-class competition in the main fields.

In respect of development of such sport as skiing or nautical sports a concerted programme will be undertaken by the Secretariat of State for Youth and Sport and the Ministry of Tourism in collaboration with other departments concerned.

Development of the resorts at Oukaimedden and Jbel Hebri will considerably increasing skiing facilities. Exhaustive investigations will also be carried out in respect of future projects. There are three nautical sports centres at the moment and Morocco's climate and geographical situation are particularly favourable. These are at Rabat, El Jadida and Mohammedia and the programme will aim first at improving their viability and secondly at a certain specialisation. Rabat will be devoted to training, preparation for competitions and will also be used as a specialists' training centre and the other two will be sailing training centres.

3.2 - Equipment budget

The credits allocated to sports facilities (7,894 million DH) will enable the existing sporting facilities to be improved and completed.

The credits are broken down as follows:

	(in 1,000 DH)
One sports unit, including a competition swimming pool and a sports hall	2,352
1 omni-sports stadium	700
1 football - basketball pitch	120
1 sports unit, including an omni-sports stadium and gymnasium	903
2 gymnasia with service rooms and seating	1,200
Sports equipment	500
Equipment credits for skiing stations	698
Equipment credits for nautical sports	521
Construction and improvement of swimming pools	900
Total	7,894

4 - Repercussion on the Operating Budget

The programme of action in the field of youth and sports will only be fully effective if considerable funds in both equipment and staff are made available for the Department of Youth and Sport.

In order therefore to make present and future facilities viable, the operating budget should rise from 7 to 8% per annum, reaching in 1972 an approximate amount of 24 million DH.

IV - THE MEASURES

In order to carry out the 1968-1972 action programme rationally, regulations have been drawn up for the purpose inter alia:

- of controlling the activities of Youth and Sport;
- decentralising initiative, but maintaining control of State investments;
- defining the measures adopted to safeguard minors.

SUMMARY TABLE OF THE EQUIPMENT BUDGET FOR YOUTH AND SPORT

(in 1,000 DH)

HEADINGS	1968	1969	1970	1971	1972	Total 1968-1972
Youth	1,850	2,222	1,454	1,600	930	8,056
Popular Education and Feminine Promotion	1,681	480	200	800	650	3,811
Sport	416	2,275	2,850	1,300	1,053	7,894
Administrative buildings	-	-	(400)	(150)	-	(550)*
Total	3,947	4,977	4,504	3,700	2,633	19,761

* Given in this table as a reminder, these credits are incorporated under the section "Administrative Facilities".

EQUIPMENT BUDGET FOR YOUTH

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total 1968-1972
Increasing the capacity of urban centres and holiday camps	190	350	546	-	-	1,086
Providing 400 beds in supervised training	1,300	1,612	748	1,440	930	6,030
Building youth hostels	-	200	100	100	-	400
Initial expenditure on socio-educational unit at Agadir and youth hostels (joint pilot scheme)	300	-	-	-	-	300
Purchase of vehicles	60	60	60	60	-	240
Total	1,850	2,222	1,454	1,600	930	8,056

EQUIPMENT BUDGET FOR POPULAR EDUCATION AND FEMININE PROMOTION

(in 1,000 DH)

HEADINGS	1968	1969	1970	1971	1972	Total 1968-1972
Popular Education, building one socio-educational unit(1)	600	480	-	-	-	1,080
Fitting out one theatre	460	-	-	-	-	460
Building a socio-educational centre	-	-	200	430	-	630
2 mobile exhibitions	70	-	-	-	-	70
50 Educational cases	31	-	-	-	-	31
Building one reception centre	-	-	-	-	200	200
Last stage of building a national youth centre	320	-	-	-	-	320
Fitting out an office with audio visual equipment	50	-	-	-	-	50
Total popular education	1,531	480	200	430	200	2,841
Feminine Promotion (2)						
Construction of a type B centre	-	-	-	-	270	270
Construction of 3 type C centres	-	-	-	370	180	550
Last stage of a type A centre	150	-	-	-	-	150
Total Feminine Promotion	150	-	-	370	450	970
Total Popular Education and Feminine Promotion	1,681	480	200	800	650	3,811

(1) Socio-educational unit at Rabat, including a popular education centre, a reception centre and a youth tourist reception centre.

(2) There are two types of Feminine Promotion centres:
Type B : 560 covered sq.m.
Type C : 380 covered sq.m.

SPORTS EQUIPMENT BUDGET

(in 1,000 DH)

Headings	1968	1969	1970	1971	1972	Total 1968-1972
MASS SPORTS						
Sports unit, including a competition swimming pool and sports hall	-	1,052	1,000	300	-	2,352
1 omni-sports stadium	-	200	300	200	-	700
Covering in the swimming pool at Bellevue	-	350	-	-	-	350
Covering in the swimming pool at Taza	-	-	250	-	-	250
1 sports unit, including an omni-sports field and a gymnasium	-			600	303	903
2 gymnasia with service rooms and seating	-	-	600	-	600	1,200
1 football and basketball field	120	-	-	-	-	120
1 small swimming pool 25 x 12	-	-	300	-	-	300
Sports equipment	75	125	100	100	100	500
SKIING						
Development of the Oukaimeden centre	-	320	-	-	-	320
Equipment and mechanical installations for skiing stations	50	178	100	50	-	378
NAUTICAL SPORTS						
Rabat resort	100	-	-	-	-	100
Multi-purpose resort at El Jadida and Mohammedia	21	-	100	-	-	121
Water sports equipment	50	50	100	50	50	300
TOTAL	416	2,275	2,850	1,300	1,053	7,894

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CHAPTER 12

PUBLIC HEALTH AND FAMILY PLANNING

MARCH 1968

PUBLIC HEALTH AND FAMILY PLANNING

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PUBLIC HEALTH AND FAMILY PLANNING

In view of the considerable population growth and accelerated urban development, Morocco has for several years had to meet the population's urgent needs in matters of health.

This pressure is also explained by the progress made in educating and informing the public, which results in an increasing demand for medical and health services. Furthermore even the relatively well off classes or those covered by insurance schemes are increasingly turning to the Public Health authorities, either because they are attracted by the more modern equipment or because their income is insufficient for them to turn to private medicine.

The medical and health needs of the population have increased rapidly over the last ten years. During the same time the increase in the hospital capacity and the number of doctors has just been sufficient to counterbalance the population growth. Health conditions however, have continued to improve. The mortality rate is at present 17 per thousand inhabitants for the country as a whole, and 11 per thousand in the main towns, against 35 per thousand inhabitants in 1940.

The size of this drop in the mortality rate is due to a number of reasons: the progress in medicine and hygiene, a higher standard of living, improvement of education, the more widespread use and particularly the more balanced geographical distribution of health facilities. The progress achieved however should not conceal the extent of the task which remains; improvement in health conditions in fact is a process which has no end.

I - EVALUATION OF THE THREE YEAR PLAN AND THE PRESENT SITUATION

During the Three Year Plan, State action in the field of Public Health was directed along four lines: prevention, cure, staff mobility, control of social diseases.

In respect of the mobile prevention and treatment units a programme of 10 million DH was adopted; this included building four urban health centres and 17 dispensaries and 3 rural health centres and 26 dispensaries. This programme was carried out in full and to a certain extent even exceeded as a result of the building techniques used (industrialised building units) which reduced delays and cost. The mobile prevention and treatment units have thus been considerably improved. These efforts have enabled much of the needs to be met and the rural sector has been the main beneficiary.

The credits allocated under the Three Year Plan for the hospital programme were aimed at consolidating schemes which had already been started. Out of a total of 26.8 million DH, 26 million DH were therefore devoted to completing former projects. Among new schemes were the hospitals at Ksar-es-Souk and Ouarzazate (total of 340 beds) for which a credit of 5 million DH had been allocated.

The work of the health and dispensary centres can only be successful if the Public Health staff is sufficiently mobile to know the locations of inhabitants and sectors. 1.1 million DH was therefore allocated to provide staff with the transport needed to carry out their mission.

The three year period thus saw first extension of the country's hospital infra-structure and secondly, in correlation, an improvement of general health conditions.

Tables 1 and 2 show respectively the extent of the Three Year Plan's implementation, including credits from 1960-1964 remaining unused at 1st January 1965, and the situation of the existing infra-structure on the eve of the Five Year Plan. Allocations amounted to 30.7 million DH, or 64% of the creidts available; credits used amounted to a total of 38,754 million DH, or 80% of availability.

TABLE 1 - THREE YEAR PLAN BUDGET

(in 1,000 DH)

	Credits available 1965-1967	Amount of allocations	Percentage of allocations
Hospital network	32,908	22,585	69
Prevention and transport	10,391	8,093	78
Social diseases	5,000	35	0.7
TOTAL	48,299	30,713	64

TABLE 2 - SITUATION OF THE EXISTING INFRA-STRUCTURE

	1958	1965	1967
Number of Health Centres	56	59	65
Number of Urban Dispensaries	91	112	133
Number of Rural Health Centres	112	115	122
Number of Rural Dispensaries	358	361	394
Number of Hospital Beds	18,244	20,398	20,738

On the eve of the Five Year Plan therefore Morocco disposes of something like one hospital bed for every 680 inhabitants and one doctor for every 11,000 inhabitants. The geographical distribution of the medical corps, however, particularly private practitioners, is uneven.

II - POLICY TRENDS OF THE FIVE YEAR PLAN

To develop the health sector at the same pace as needs which, because of the population gorwth, are increasing more and more rapidly, presupposes a considerable effort by the State in the field of Public Health.

These efforts over the five year period will be directed towards the following:

a) Improving the training of medical and auxiliary staff

In 1967, out of 1,300 doctors practising in the country, less than half belonged to the National Health Service although they diagnosed and treated practically 90% of the sick. To meet these needs the number of Moroccan doctors was very inadequate: 150.

This illustrates the difficulty for the present hospitals and health centres in meeting the ever increasing needs of the population when the numbers of doctors and auxiliary staff in them is so inadequate.

The training of future doctors is particularly important under the Five Year Plan and this will take the form of building and equipping a University Hospital Centre and building a Faculty of Medicine at Rabat. Taking into account, however, the estimated numbers of students doctors' training will only speed up after 1970-1971 and this will enable State activities in the public health sector to be considerably increased in the post five year period. The efforts devoted since Independance to training auxiliary medical staff to meet the needs of the Public Health and private sector will be extended. The capacity of existing training centres is adequate to meet these needs.

b) Maintenance of the existing hospital structure

Before increasing the number of hospital beds, for which the essential doctors and nurses could not be found quickly enough, the existing hospital structure should first be consolidated by training the additional staff required and making the considerable efforts needed to remedy the out-of-date condition of certain hospitals and replace the considerable amount of equipment which is worn-out, in order to safeguard, maintain and modernise the hospital infra-structure.

c) Improvement of the urban and rural diagnosis network and the mobile prevention and treatment units and making them viable

The Five Year Plan aims to complete the process of providing the country with a basic network of modern and efficient mobile care and prevention units - these are in fact the health centres and dispensaries.

The increased pressure of health needs resulting from the accelerated population growth can thus be met. This network will also enable:

- Public Health programmes to be improved (control of contagious illnesses and social diseases, greater environmental hygiene) with the aim of providing the population with better physical, social and mental conditions, which is another way in fact of withholding the pressure which would otherwise overwhelm the hospital service.

Efforts will be devoted mainly to the rural sector in view of the persistance of certain infectious and parasitical diseases. This decision is also dictated by the aim to provide a better geographical distribution of the available health services. Other programmes will also be incorporated in the work of the health centres and dispensaries..To this end the credits allocated will be first for modernising the conditions under which mobile treatment is provided, for improving general hygiene and for educating the population in health matters.

In the towns State action will pursue the same aims with a constant effort to reduce costs and building delays and to ensure a more balanced distribution of duties among the various health centres.

d) Incorporation of Family Planning under Public Health schemes

Given priority under the Plan, family planning could achieve its targets provided that the health centre and dispensary networks are completed. The family planning programme in fact should be integrated with the Public Health activities in these centres.

Finally the credits allocated to dispensaries and centres and to the hospital establishments properly so called relate to specific schemes determined by taking account of the anticipated strength of doctors and auxiliary staff.

The planned hospital building and modernisation programme will increase Morocco's hospital capacity by nearly 2,500 beds.

Studies will also be carried out at the beginning of the Five Year Plan to obtain optimum utilisation of the existing hospital equipment and ensure a more rational planning of investment in the post five year period, particularly in respect of preparing hospital projects.

III - PROGRAMME OF ACTION

The total investment credits allocated to Public Health amount to 100.8 million DH for schemes coming under the Five Year Plan 1968-1972. The credits allocated for extension of the Ministry of Health should also be taken into account; these amount to 700,000 DH and are incorporated under the section "Administrative Facilities". Completion of the University Hospital Centre will require an additional credit of 4.95 million DH in 1973. These equipment credits are broken down as follows (including unused credits carried over to the five year period).

	(in thousands DH)
Family Planning	6,100
Urban preventive treatment network	10,078
Rural preventive treatment network	16,500
University Hospital Centre	33,630
Hospital network	25,387
Extension of the Ministry of Health	(700)
Studies	500
General hospitals	2,085
Rebuilding the Agadir Hospital Centre	1,000
Control of social diseases	4,965
Rural training	508
Total	100,753

PUBLIC HEALTH

1.1 - Urban preventive treatment services

Apart from the health centres and dispensaries and maternity clinics, a diagnosis centre will be built and incorporated in the University Hospital Centre at Rabat. This diagnosis centre will be of considerable importance for the practical training of medical students.

The credits allocated to urban preventive services amount to 9.5 million DH and are broken down as follows (in thousands of DH).

One diagnosis centre and four health centres	1,520
75 urban dispensaries or maternity clinics	6,580
Other equipment credits	1,978
Total	10,078

1.2 - Rural preventive treatment centres

The rural preventive infra-structure will be extended to ensure that the integrated mass schemes, practical hygiene and health education, family planning programme, eradication of malaria, can be effectively undertaken. Control of tuberculosis, eye diseases, mental and other illnesses will be difficult unless this infra-structure is extended. State efforts are therefore particularly important and the equipment budget allocated to rural preventive services will amount to 16.5 million DH.

	(in thousand DH)
100 rural dispensaries and health centres	3,825
Accommodation for medical auxiliary staff	9,655
Other equipment credits	3,020
Total	16,500

1.3 - Hospital equipment

The efforts made during the Plan concerning hospitals will be twofold: first, maintenance, extension and modernisation of the existing equipment and secondly, building new hospitals, specifically the University Hospital Centre at Rabat, consisting of a hospital complex located at Rabat-Salé and completion of the hospitals commenced under the Three Year Plan. Completion of this programme will increase the hospital structure by 2,500 beds. The projects adopted and the relative credits are summarised below (in thousands of DH).

University Hospital Centre	33,630
Modernisation and maintenance of existing hospitals	25,387
Study credits for new hospitals	500
Total	59,130

2 - FAMILY PLANNING

The growth rate of Morocco's population, already one of the fastest in the world, will increase even further in the years to come unless vigorous planning measures are taken. The medium and long-term economic and social consequences of this population growth were dealt with in Volume I. In 1966 the Royal Decree 180-66 of 26th August 1966 set up the Higher Committee and local committees on population. In the same year a national family planning seminary was organised and at the same time pilot family planning centres were set up. Finally a survey aimed at determining the views, attitudes and awareness of the situation of Moroccan families was organised. The results of this survey show that a considerable proportion of the population favours family planning.

2.1 - Objectives of the Programme

The programme aims at:

- allowing families to choose the number of children they want and when to have them, according to their means, by providing them with the necessary instruction and information.

- ensuring the voluntary co-operation of the population and offering families the choice of the contraceptive method which they find most convenient.

- providing the Public Health services with the equipment and staff to enable them to provide a family planning advisory service.

Expressed as a demographic target the gross birth rate should be reduced by 10% over the five year period to 45 per thousand in 1972.

2.2 - Programme of Action

The experience of many countries in matters of family planning has proved that family planning can only be successful if a vigorous programme of instruction and information to the public is undertaken. The programme of action envisaged will therefore have two main aspects: a medical programme and a systematic advisory and information service for the public.

a) Family Planning Medical Programme

The family planning medical service will organise consultations in the health centres, dispensaries, mobile units, hospitals and maternity clinics and will supervise their activities. It will work in close co-operation not only with all the medical services of the Ministry of Public Health but also with the medical corps and private practitioners.

Medical action will take the form of providing families, under full medical supervision, with a range of contraceptive products; the inter-uterine device has proved to be the most effective for a wide-scale project and considerable efforts will therefore be made to achieve the target of inserting 500,000 devices during the five year period.

This programme will be planned as follows:

Year	Number of insertions
1968	25,000
1969	65,000
1970	120,000
1971	140,000
1972	150,000
1968-1972	500,000

At the same time families will be provided with oral contraceptives and other methods under medical supervision.

b) Programme of information and instruction

Providing information and instruction for families is one of the most difficult and most important tasks and a co-ordinated campaign will be needed over several months in order to create a climate favourable to family planning.

In conjunction with all the mass media (radio, television, press, posters, films, associations etc.) which will require effective action by the main ministerial departments concerned, a specific programme of advice and information will be instituted. A body of advisors will be formed whose task will be to maintain direct contact with families and explain to them the various aspects of family planning.

The table below shows year by year the recruitment programme:

Year	Cumulative numbers
1968	120
1969	240
1970	360
1971	480
1972	600

c) Budgetary implications

Setting up this programme will require an equipment budget of 6.1 million DH for the five year period. The breakdown of this budget is shown in the table below. The operating credits, without which the targetted objective could not be achieved, will progressively increase to reach a level of 5 million DH in 1972. The equipment credits for family planning can be broken down as follows (in thousands of DH).

Vehicles	550
Health education	750
Sundry	4,300
Statistical surveys and research	500
Total	6,100

III - REPERCUSSIONS ON THE OPERATING BUDGET

More than elsewhere there is a close link between the equipment budget and the operating budget in matters of Public Health. Equipment programmes can only be rendered viable of course if the necessary staff and equipment are available.

Annual operating expenditure will amount in 1972 at the end of the five year period to 254 million DH against 200 million DH in 1967, or an increase of an average of 5% a year.

The increased operating expenditure over the five year period will enable more medical and auxiliary staff to be recruited to fill the vacant positions in the prevention and cure services. The operating budget of the Ministry of Health will increase even more rapidly after 1973-1974 when all the equipment programmes carried out under the Five Year Plan will be in service.

IV - THE MEASURES

1 - Public Health

1.1 - Financial management of self-governing hospitals

The management of self-governing hospitals involves certain specific expenditure; it became obvious however that the cost of operating these establishments was particularly high with the cost to the State being considerable. The self-governing management system will therefore not be extended to new establishments and studies will be made over the five year period to determine the best juridical system to be adopted for hospitals, particularly for those with financial and juridical autonomy.

1.2 - Financing medical health expenditure

In 1967 the receipts of the Ministry of Public Health amounted to scarcely 4½% of expenditure. In conjunction therefore with the measures to be undertaken for reorganising the health services and increasing their efficiency, measures will also be put forward and studied concerning the following matters:

- Although the principle of free medical care for low income groups remains unchanged, the cost of hospitalisation will be reviewed and consideration given to the possibility of instituting a "consultation stamp" and the modalities of its application.

- Eventual participation by the municipalities towards the costs of operating hospitals within their areas of responsibility.

- The cost of operating hospitals is high at present and measures should be adopted to reduce these costs and to improve the treatment provided for patients.

1.3 - Pharmaceutical products

During the five year period the question of the manufacture and marketing of pharmaceutical products will be the subject of appropriate investigations, particularly in respect of:

- Encouraging new investment in the pharmaceutical industry and the manufacture of new products;

- Stabilisation of prices of medical supplies and lower prices of certain products where possible.

2 - Family Planning

2.1 - In view of the size of the task to be undertaken in relation to family planning a Directorate of Technical Services and Family Planning will be set up under the Ministry of Health and Population. In respect of family planning the duties of this Directorate will consist in drawing up, carrying out and evaluating the national family planning programme as laid down by the Higher Committee on Population and the provincial committees.

2.2 - In order to protect the family and avoid any undesirable consequences from a social and genetic point of view deriving from unions between adolescents, the age of consent for marriage will be fixed at 18 years for females and 21 for males.

2.3 - In respect of family allowances current legislation seems to encourage large families. These allowances, in fact, are paid up to and including the sixth child.

This legislation will therefore be reformed and brought in alignment with the policies adopted to check the population growth and taking into account the financial balance of the system of family allowances and the economic situation of the country.

GENERAL SUMMARY OF THE EQUIPMENT BUDGET FOR PUBLIC HEALTH AND FAMILY PLANNING

(1,000 DH)

Type of operation	1968	1969	1970	1971	1972	1968 1972
Family planning	775	1,210	1,307	1,248	1,560	6,100
Urban preventive treatment system	700	1,000	2,100	2,290	3,988	10,078
Rural preventive treatment system	400	2,500	3,776	4,317	5,507	16,500
University Hospital Centre	673	6,726	8,365	9,790	8,076	33,630
Hospital network	2,000	6,000	6,055	5,048	6,284	25,387
Extension of the Ministry of Health	– a)	(200) a)	(100) a)	(150)	(250)	(700)
Studies	50	150	100	100	100	500
General hospitals	2,085	–	–	–	–	2,085
Rebuilding the Hospital Centre at Agadir	1,000	–	–	–	–	1,000
Control of social diseases	4,965	–	–	–	–	4,965
Rural instruction	508	–	–	–	–	508
TOTAL	13,156	17,586	21,703	22,793	25,515	100,753

a) Given here as a reminder, the credits allocated for extension of the Ministry of Health are incorporated under the section "Administrative Facilities".

Details of the equipment budget for Public Health and Family Planning are shown in the tables below:

EQUIPMENT BUDGET FOR FAMILY PLANNING

(in 1,000 DH)

	1968	1969	1970	1971	1972	1968 1972
Health education	150	150	150	150	150	750
Gynaecological equipment, contraceptive products and sundry	500	900	855	895	1,150	4,300
Statistical enquiries and research	50	75	200	75	100	500
Vehicles	75	85	102	128	160	550
Total Family Planning equipment budget	775	1,210	1,307	1,248	1,560	6,100

EQUIPMENT BUDGET FOR THE URBAN PREVENTIVE TREATMENT NETWORK

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total 1968/1972
Buildings						
1 diagnosis centre	-	100	300	200	200	800
4 urban health centres	100	200	200	220	-	720
75 urban dispensaries or maternity clinics	400	400	1,200	1,400	3,180	6,580
Closures and branches	100	100	140	170	188	698
Equipment	100	400	260	300	220	1,280
Total urban preventive treatment network	700	1,000	2,100	2,290	3,988	10,078

EQUIPMENT BUDGET FOR THE RURAL HEALTH NETWORK

(in 1,000 DH)

Heading	1968	1969	1970	1971	1972	No.	Cost 1968/1972
Rural dispensaries	250	745	820	895	980	99	3,690
Health centres	-	135	-	-	-	1	135
Auxiliary staff accommodation	50	700	2,000	2,500	3,325	1,715	8,575
Doctors' accommodation	-	300	300	240	240	18	1,080
Fitting out premises	-	100	70	70	109	-	349
Individual equipment	-	75	100	100	122	1,582	397
Motor cycles	20	49	56	49	78	360	252
Mules	50	140	140	140	190	60	660
Mule shelters	20	92	98	98	119	609	427
Bicycles	10	32	12	15	26	643	95
Vehicles	-	132	180	210	318	140	840
Total rural preventive treatment network	400	2,500	3,776	4,317	5,507	-	16,500

EQUIPMENT BUDGET FOR THE UNIVERSITY HOSPITAL CENTRE AND THE HOSPITAL NETWORK

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total 1968/1972
University Hospital Centre(a)						
Avicenna extension	-	2,250	2,500	3,000	2,250	10,000
University maternity unit	300	1,526	2,000	2,000	1,824	7,650
El Ghazi hospital	150	750	225	375	280	1,780
Operating unit	-	400	800	1,555	2,245	5,000
Workshops	-	-	240	160	-	400
Catering service	123	1,000	1,500	1,500	877	5,000
Emergency services	100	700	600	600	300	2,300
Moulay Yousef Hospital	-	100	500	600	300	1,500
TOTAL U.H.C.	673	6,726	8,365	9,790	8,076	33,630
Modernisation and Maintenance						
Hospital equipment under Three Year Plan	1,253	935	630	-	1,190	4,008
Vehicles	129	7	65	23	183	407
Additional equipment	460	845	1,260	725	945	4,235
Accommodation	158	713	600	800	613	2,884
Modernisation	-	3,500	3,500	3,500	3,353	13,853
TOTAL MODERNISATION	2,000	6,000	6,055	5,048	6,284	25,387
Study credits for hospitals for the post five year period	50	150	100	100	100	500

(a) Completion of the University Hospital Centre will require a credit of 4.95 million DH in 1973.

KINGDOM OF MOROCCO

PRIME MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING AND
THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 13

TRANSPORT

MARCH 1968

TRANSPORT

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TRANSPORT

Transport infra-structure facilities, vital to the economic development of our country, constitute one of the main elements of the Five Year Plan 1968-1972, although not in fact one of the priorities.

In fact the total investment to date, by its very size, first necessitates additional expenditure on maintenance and reorganisation and secondly the main purpose of the transport infrastructure is to create the essential conditions for rapid and rational development but without actually preceding this development which would place too great a financial burden on the years to come and take up too great a proportion of the national income to the detriment of the less advanced sectors.

This is reflected in the Five Year Plan 1968-1972, both in the rate of expenditure being at most equal to that under the Three Year Plan and in the strict choice of projects to be pursued; a number of profitability studies were in fact carried out so that only those operations where the importance to the national economy was clearly proved will be adopted.

The present section will deal successively with ports, the merchant navy and fishing fleets, roads and road transport, railways and civil aviation.

A - PORTS

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

The share of maritime traffic in the overall overseas trade is preponderant; in 1965 it represented 88% of the total imports and exports in volume and 92% in value. These two percentages suffice to indicate the importance of ports to Morocco's economy. This importance is further increased by their natural role as poles of development. In order to differentiate the investment policies to be carried out in respect of port-infra-structure, it seemed necessary to classify the various ports in relation to their size and importance in overseas trade and the extent of their hinterland:

1) National Ports

The Casablanca - Mohammedia complex
The Port of Safi
The Port of Tangiers

2) Regional Ports

Agadir
Kenitra

3) Local ports

Atlantic coast	Mediterranean Coast
LARACHE	AL HOCEIMA
EL JADIDA	JIBHA
ESSAOUIRA	MARTIL
	M'DIQ
	KSAR ES SEGHIR

The port infra-structure development programme over the three year period was scrupulously adhered to because, with a few rare exceptions, practically all credits were committed at 31st December 1967 and in the main used up.

A grant of supplementary credits, under various headings, will enable some ports to carry out more schemes than had been incorporated under the Plan.

Particular mention should be made of the Port of Mohammedia which was managed by a private company (this concession ended at the beginning of 1967). This company's three year development plan provided for an investment of almost 100 million DH (including approximately 80 million for extending the outer harbour and replacing the sea line).

The amount of work carried out in fact only amounts to 14,580,000 DH as the two schemes mentioned above were deferred pending an economic and technical study to determine the best solution for the future organisation of oil traffic. This study, which is now completed, confirms Mohammedia in its role as the main tanker port. Other schemes have also had to be abandoned.

The table below summarises the main characteristics of each of the other ports over the three year period.

EVALUATION OF THE THREE YEAR PLAN

(in 1,000 DH)

PORT	Credits available	Credits utilised at 31.12.67	OBSERVATIONS
I - National Ports			
CASABLANCA	17,843	12,785	Main schemes carried out Completion of the Chaix pier. New equipment and improvements etc..
TANGIERS	15,279	15,279	Main schemes carried out Equipment of the free port area. Equipment, super-structure and machinery. Car ferry quay. All credits were committed but the harbour station and fish hall on which no work was carried out, will be incorporated under the Five Year Plan.
SAFI	50,700	50,700	Main schemes carried out Strengthening the pier and construction of the north quay. Port infra-structure and super-structure for the chemical complex.
2 - Regional Ports			
KENITRA	8,347	7,576	Main schemes carried out Dredging the Sebou Estuary (4,7 million DH). Scheme postponed: Repair of the "Meknes" quay.
AGADIR	3,700	3,700	Main schemes carried out Additional equipment Various development work.
3 - Local Ports			
EL JADIDA	123	123	These credits, initially planned for repair of a wharf were used for dredging the port.
ESSAOUIRA	3,250	3,250	Construction of fishing wharf. Extension of the pier.
OTHER PORTS	5,912	3,334	
LIGHTHOUSES and BEACONS	-	-	
TOTAL	105,154	96,747	

II

II - POLICY TRENDS OF THE PLAN

In view of the predominant share occupied by maritime traffic in the whole of overseas trade it is understandable that any forecast of future traffic is governed closely by the assumptions adopted in respect of overseas trading trends.

Between 1965 and 1973 the overall traffic routed through the ports (except Mellila-Nador) will rise from 15,554,000 tons to 23,331,000 tons, or an increase of 5.2% a year.

All ports will increase their traffic substantially.

Allowance was made in making this forecast for certain imponderables and this rate may well be exceeded:

- In Tangiers by means of setting up free industrial and commercial zones;

- In Agadir by means of the increasing importance of citrus fruit and from its planned role as a tourist point.

Some small ports (Kenitra, Larache, El Jadida, etc.) will continue to lose traffic unless the necessary steps are taken.

A general policy on port infra-structure was laid down but will be interpreted flexibly to take into account the special characteristics of each port and the region it serves.

State action will be governed by three principles:

1) to ensure the maintenance and protection of existing installations and infra-structure by carrying out major maintenance work and repairs and replacement of equipment at the present time.

II) only to undertake extension operations if their need is clearly indicated and if all the technical possibilities for ensuring an optimum use of existing installations have been explored.

III) to satisfy the imperatives of the development of productive sectors: agriculture, industry, tourism. The port infra-structure can in certain cases be an "ancillary" infra-structure and be justified within the framework of an integrated project. This was the case for example under the Three Year Plan with the new installations at the Port of Safi which were needed because of the setting up of the chemical complex. This will also be the case under the Five Year Plan with the extensions to be made to this port as a result of the Ben Guerir phosphate deposits being worked.

In all cases, however, priority was given to maintenance operations. At Casablanca and Safi for example the main piers which are constantly exposed to the strong Atlantic gales should be strengthened and at Kenitra, silting up of the port requires the purchase of a dredger: in most ports the super-structure installations (lighterage equipment, tugs, pipelines etc.) should be replaced wherever the need is felt.

Extensions will be confined mainly to the ports of Agadir and Safi. In the former a new mineral wharf will be built and the fishing port will be extended. In the latter, apart from the above mentioned extensions the naval dockyards will also be extended.

The extension envisaged at Tangiers and Casablanca will be postponed beyond 1972. This delay will enable for Tangiers the extent of the needs deriving from the existence of the free zones to be measured and for Casablanca, the increase in the tourist flow and medium-term industrial development to be determined.

III - THE MEASURES

Investment decisions are now taken on a central level. This practice offers no guarantee against any over- or under-estimation of needs. The solution to this problem could be by giving the more important ports greater autonomy of management.

This greater degree of self-control would also mean that the ports would be obliged to balance their accounts, to carry out an orthodox amortisation policy and to finance their investments from their own resources or by means of loans. Equipment subsidies could be allocated on an exceptional basis for the more important project . This presupposes that present tariffs can be revised and modelled in relation to the actual value of the services rendered.

In view of the complexity of the problems raised by such a proposition, it appeared wiser to consider the Five Year Plan beginning in 1968 as a period of reflection and study, at the end of which it would be possible to indicate what reforms would be needed. The solutions recommended would obviously not be standard for all sectors.

IV - THE PROGRAMME

During the Plan 124.3 million DH will be invested under the State budget for port infra-structure. The various port management authorities will add to this sum from their own resources (26.7 million DH).

The breakdown by port of these credits is given below.

Chargeable to the State Budget

National ports:	
CASABLANCA	23,710 thousand DH
SAFI	6,465 "
TANGIERS	51,200 "
TOTAL national ports	81,375 thousand DH
Regional Ports:	
AGADIR	19,255 "
KENITRA	13,043 "
TOTAL regional ports	32,298 thousand DH
TOTAL local ports	9,078 "
Lighthouses and beacons	1,550 "
GRAND TOTAL	124,301 "

Chargeable to the various authorities

CASABLANCA (RAPC)	12,800 "
MOHAMMEDIA	12,960 "
TANGIERS	1,005 "
GRAND TOTAL	26,765 "

1 - Port of Casablanca

1.1 - Infra-structure

The Port of Casablanca at present is not suffering from any undue bottlenecks, although the considerable delay in carrying out port infra-structure installations necessitates preparation long in advance of any extension project. At Casablanca therefore as the construction of new wharf extensions within the present confines of the port is difficult, increase in the volume of traffic will require in the more or less long-term construction of a new water level. A transversal 1,100m jetty should be built for this purpose thereby doubling the working area of the port.

Before carrying out this work, however requiring considerable funds (some tens of million DH), it should begin by a series of economic and technical studies after which it should be possible to determine the date and optimum construction conditions.

The various maintenance and development operations amounting to 11,490,000 dirhams were given special attention. These will consist mainly of:

Protection of the Delure jetty, the units of which being compressed have caused several holes, a hauling-slip and finally an effective fire protection system particularly against surface oil fires.

The table below summarises these overall investments:

- Protection of the Delure jetty	8,000	thousand DH
- Hauling-slip (additional work)	500	"
- Fire protection	500	"
- Various development work	2,490	"

1.2 - Super-structure and equipment

These schemes involving replacement or new purchases will be undertaken partly by the R.A.P.C. The corresponding figures are shown in brackets below.

A detailed study determined the number of units which could profitably be replaced and specified a maintenance programme over the years to come.

New acquisitions			
Vehicles: 3 lorries and 6 light vehicles	220	thousand DH	
Replacement of equipment			
33 5 ton cranes	12,000	"	(state 800 beyond the Plan)
1 12½ton crane	(3,700)	"	
Elevator tractors, utility and light vehicles	(3,710)	"	
Tugs and trucks	(1,835)	"	
Generating sets, protection of wharves and floating equipment, pipeline and sea line.	(3,555)	"	

The total investment planned will mean that Casablanca will be the main beneficiary from the investments allocated to port development over the period in question.

2 - Port of Mohammedia

The present sea-line (for unloading tankers anchored in the outer harbour) which is no longer usable will be replaced.

Various development work will also be carried out including strengthening of the north jetty. The latter operation, however, will be completed after 1972.

New schemes

Construction of a sea-line with link Casablanca - Mohammedia Samir sea-line	9,500 thousand DH

Maintenance and improvement of existing installations

North sea-wall	65 (1,300 beyond the Plan)
Various development work	995 thousand DH

2.2 - Super-structure and equipment

The super-structure work will consist in developing the existing facilities and the fishing port. Added to this will be the purchase of hoisting equipment such as cranes and elevators, tractors and finally a 150 h.p. motor vessel.

Super-structure

Equipment and buildings for port use	333 thousand DH
Various development work	465 "

Equipment

Crane, tractors, elevators	1,270 "
150 h.p. motor vessel	200 "
Various	132 "

All these schemes represent a total investment of 12,960,000 DH for the five year period and 1,300,000 beyond that.

3 - Port of Tangiers

3.1 - Infra-structure

The importance of Tangiers as the main tourist reception port necessitates completion of the first car ferry landing-stage.

The construction of new wharves will be considered as a new operation (including possibly a grain silo). In view of the amount of work involved the credits incorporated hereunder will be used purely for carrying out more extensive studies. Finally the fishing quay will be extended.

Various completion operations

Including the first car ferry landing-stage	530 million DH

New schemes

Grain silo and ancillary infra-structure (wharves 2 and 3, extension of the breakwaters). Studies	1,000 thousand DH
Extension of the fishing wharf	560 "

3.2 - Super-structure and equipment

The super-structure work will be mainly concerned with the harbour-port and development of access ways, which were already envisaged under the Three Year Plan.

Purchases of equipment will be chargeable to the management authority almost in full.

Super-structure

- Construction of a fish hall	500 thousand DH
- Customs area	145 "
- Demolition of sheds and stores	200 "
- Harbour-station and development of access ways	3,400 "

Equipment

- Port management authority equipment	(1,005) "
- Port equipment	130 "

All these operations will require an investment of more than 7 million DH, which can be broken down as follows:

- Chargeable to the general budget	6,465 thousand DH
- Chargeable to the management authority	(1,005)

4 - Port of Safi

4.1 - Infra-structure

Working the Ben Guerir phosphate deposits renders essential extensive development of the Port of Safi. In fact, 15 million tons of phosphate will have to be cleared in 1980 instead of 2.5 million tons at present. This presupposes:

- that docks be made deeper (to enable ore carriers of 50,000 tons and over to be unloaded).

- construction of a new sea-wall.

The cost of the work amounts to 32 million dH.

Another new scheme concerns extending the naval dockyards and will cost 1 million DH.

Maintenance work however will by no means be overlooked. The rebuilding and strengthening of the main jetty is particularly urgent. 10 million DH will be allocated for this.

Furthermore there is a danger that the cliff overhanging the port will collapse. Studies will be made to analyse the extent of this danger and to determine the remedies. In view of the uncertain nature of this work, other credits may well be needed during the period 1968-1972. The infra-structure work can be broken down as follows:

New schemes

Infra-structure connected with the Ben Guerir mine	32,000	thousand DH
Extension of the naval dockyard	1,000	"

Maintenance operations

Completion of the Three Year Plan	3,000	"
Strengthening the major jetty	10,000	"
Cliff overhanging the port (studies)	200	..
Maintenance dredging	1,000	

4.2 - Super-structure and equipment

The credits allocated for equipment will be used first for purchasing a tug and secondly for overhauling and modernising equipment.

Purchase of a tug	2,000	thousand DH
Overhauling and modernising equipment	2,000	"

The total work in the Port of Safi will represent a cost of 51,200,000 DH.

5 - Port of Agadir

5.1 - Infra-structure

This will involve maintenance of the existing installations and credits were allocated for consolidation of the main and west jetties.

Extension work concerns construction and equipment of a mineral wharf (the length of this wharf will be 300 metres) and enlarging the fishing port.

The credits are summarised below:

Maintenance of existing installations	1,200	thousand DH
Maintenance dredging	2,050	"

Extensions

- Construction and equipment of new mineral wharf	6,000	"
- Fishing port	6,000	"

5.2 - Super-structure and equipment

The export forecasts for citrus fuits will result in the port being provided with tugs, mobile cranes, elevator trucks, etc... and existing buildings being re-equipped.

Breakdown of credit

Purchase of new equipment	3,255 thousand DH
Service buildings	750 "

The total work at the Port of Agadir will represent 19,255 million DH.

6 - Port of Kenitra

Work will mainly concern dredging (and renovating the bed of Oued Sebou) and repair of the Dubreuil wharf.

The Port of Kenitra will be provided in future with a dredger. The economies achieved compared with the alternative of calling in foreign firms will enable this investment to be rapidly amortised (less than 2 years).

Completion of the Three Year Plan

Maintenance	420 thousand DH
- Dredging	4,200 "
- Repairing the Dubreuil wharf and renovation of the Oued Sebou	5,000 "
Equipment	
- Purchase of a dredger	3,423 " (7,290) beyond the Plan
TOTAL KENITRA	13,043 thousand DH

7 - Local ports, lighthouses and beacons

- EL JADIDA
- ESSAOUIRA
- LARACHE
- M'DIQ
- JEBHA

A new fishing port will be built on the Mediterranean coast at Jebha (cost 3 million DH). The new port of M'Diq was allocated a credit of 1 million DH for completion of its installations. The secondary ports on the Atlantic coast will not undergo any major schemes, existing equipment will merely be maintained. Particular attention however will be given to the Port of Larache which is at present threatened with silting. A study will be carried out to determine the development prospects of this port.

Finally, work on lighthouses and beacons falls into two categories: first completion of work under the Three Year Plan and secondly new schemes.

This work is summarised below.

	LOCAL PORTS
Completion of the Three Year Plan	2,028 thousand DH
New schemes	
- Port of El Jadida	850 "
- Port of Essaouira	1,200 "
- Port of Larache	1,000 "
- Port of M'Diq	1,000 "
- Port of Jebha	3,000 "
TOTAL LOCAL PORTS	9,078 "

	LIGHTHOUSES AND BEACONS
Completion of the Three Year Plan	550 thousand DH
New schemes	1,000 "
TOTAL LIGHTHOUSES AND BEACONS	1,550 "

SUMMARY TABLE OF INVESTMENT UNDER THE

FIVE YEAR PLAN

(in 1,000 DH)

Chargeable to the State Budget

	1968	1969	1970	1971	1972	Total	Beyond the Plan
NATIONAL PORTS							
CASABLANCA							
Infra-structure							
- Maintenance and various development work							
- Protection of the Delure jetty	1,000	1,500	1,500	2,000	2,000	8,000	-
- Hauling-slip (further work)	-	500	-	-	-	500	-
- Fire protection	-	500	-	-	-	500	-
- Various development work	200	480	540	570	700	2,490	-
Super-structure and equipment							
- New purchases							
- Vehicles - 3 lorries and 6 light vehicles	70	150	-	-	-	220	-
- Replacement of equipment 33 5-ton cranes	800	2,800	3,800	3,800	800	12,000	800
TOTAL CASABLANCA	2,070	5,930	5,840	6,370	3,500	23,710	800
TANGIERS							
Infra-structure							
- Various completion schemes, including the first car ferry landing-stage	530	-	-	-	-	530	-
- New schemes Grain silo and ancillary infra-structure (wharves 2 and 3 extension of sea wall, studies);	-	-	-	-	1,000	1,000	-
extensions: lengthening the fishing wharf	-	-	560	-	-	560	-

	1968	1969	1970	1971	1972	Total	Beyond the Plan
Super-structure and equipment							
- Construction of a fish hall	-	500	-	-	-	500	-
- Customs area	145	-	-	-	-	145	-
Demolition of sheds and stores	200	-	-	-	-	200	-
- Harbour station and development of access ways	2,700	700	-	-	-	3,400	-
- Port equipment	-	30	100	-	-	130	-
TOTAL TANGIERS	3,575	1,230	660	-	1,000	6,465	-
SAFI							
Infra-structure							
Completion of the Three Year Plan	3,000	-	-	-	-	3,000	-
- Maintenance operations							
- Reinforcement of the main jetty	500	2,500	2,500	2,500	2,000	10,000	-
- Cliff overhanging the port	-	200	-	-	-	200	-
	200	200	200	200	200	1,000	-
- Maintenance dredging							
Extension of naval dockyards	-	-	400	400	200	1,000	-
- Super-structure and equipment							
- Purchase of a tug	500	1,500	-	-	-	2,000	-
- Overhauling and modernisation of equipment	400	400	400	400	400	2,000	-
- Infra-structure connected with the Ben Guerir project.	6,400	6,400	6,400	6,400	6,400	32,000	-
TOTAL SAFI	11,000	11,200	9,900	9,900	9,200	51,200	-
TOTAL NATIONAL PORTS	16,645	18,360	16,400	16,270	13,700	81,375	800

	1974	[illegible]	[illegible]
ELLANEOUS			
ation of a fish	–	305	
arves	340		
tion of sheds			
rns	80		
station and			
ment of vessels	2,5[illegible]		
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ENTIRE	3,175		
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ted with the			
harbour project.			
ART			
NATIONAL PORTS			

	1968	1969	1970	1971	1972	Total	Beyond the Plan
Regional Ports							
AGADIR							
Infra-structure							
- Maintenance of existing installations	100	500	600	-	-	1,200	-
- Maintenance dredging	300	650	400	350	350	2,050	-
- Construction and equipment of a new minerals wharf	1,000	3,000	2,000	-	-	6,000	-
- Fishing port	500	1,500	2,000	2,000	-	6,000	-
Super-structure and equipment							
- Purchase of new equipment	51	951	751	751	751	3,255	-
- Buildings	600	-	-	-	150	750	-
TOTAL AGADIR	2,551	6,601	5,751	3,101	1,251	19,255	-
KENITRA							
Completion of the Three Year Plan	420	-	-	-	-	420	-
Maintenance							
Dredging	1,400	1,400	1,400	-	-	4,200	-
Repair of Dubreuil quay	-	250	2,750	2,000	-	5,000	-
Equipment							
Purchase of dredger	-	800	800	911	912	3,423	7,290
TOTAL KENITRA	1,820	2,450	4,950	2,911	912	13,043	7,290
TOTAL Regional Ports	4,371	9,051	10,701	6,012	2,163	32,298	7,290
Local Ports							
Completion of the Three Year Plan	1,028	1,000	-	-	-	2,028	-
- El Jadida	200	300	350	-	-	850	-
- Essaouira	40	290	290	290	290	1,200	-
- Larache	200	600	200	-	-	1,000	-
- M'Diq	50	350	200	200	200	1,000	-
- Jebha	100	400	900	800	800	3,000	-
TOTAL Local Ports	1,618	2,940	1,940	1,290	1,290	9,078	-
Lighthouses and Beacons							
Completion of the Three Year Plan	200	350	-	-	-	550	-
New schemes	100	150	250	250	250	1,000	-
TOTAL Lighthouses and Beacons	300	500	250	250	250	1,550	-
GRAND TOTAL	22,934	30,851	23,291	23,822	17,403	124,301	8,090

Chargeable to the various authorities

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total	Beyond the Plan
CASABLANCA (RAPC)							
Super-structure and equipment (replacement)							
1 12½ ton crane	600	1,050	1,050	1,000	-	3,700	-
Elevator tractors, light utility vehicles	960	965	445	350	990	3,710	-
Tugs and wagons	487	458	400	250	240	1,835	-
Generator sets wharf expenditure, floating machinery, pipe-line, sea-line	1,980	515	510	550	-	3,555	-
TOTAL CASABLANCA	4,027	2,988	2,405	2,150	1,230	12,800	-
MOHAMMEDIA							
Infra-structure							
New schemes							
Construction of sea-line linking Casablanca-Mohammedia-Samir	900	-	8,600	-	-	9,500	-
Maintenance and improvement							
North Sea wall	65	-	-	-	-	65	1,300
Various development work	55	310	170	200	260	995	-
Super-structure and equipment							
Installations and buildings for port use	85	100	25	98	25	333	
Various equipment	145	240	80	-	-	465	-
Cranes, tractors and elevators	110	-	260	450	450	1,270	-
150 h.p. motor vessel	-	-	100	100	-	200	-
Various	67	-	-	35	30	132	-
TOTAL MOHAMMEDIA	1,427	650	9,235	883	765	12,960	1,300
TANGIERS							
Port management authority's equipment	205	270	350	180	-	1,005	-
TOTAL TANGIERS	205	270	350	180	-	1,005	-
GRAND TOTAL	5,659	3,908	11,990	3,213	1,995	26,765	1,300

B) MERCHANT NAVY

The setting up of a national merchant fleet meets a legitimate desire for autonomy and the aim to show Morocco's presence and vigour on the high seas and in the ports of the nations with whom we trade

It is also natural that Morocco should have a fleet in proportion to its port installations and the volume of its maritime traffic.

Above all else, however, the existence of an effective national fleet enables substantial foreign exchange savings to be made. The Three Year Plan estimated at 200 million DH the annual foreign exchange outflow caused by the cost of freight carried in foreign vessels. There is therefore a very real possibility of gradually reducing this foreign exchange outflow by expanding the Moroccan fleet and, by diversifying it, the purchase of vessels (in foreign currency) will be rapidly offset by the gain (in foreign currency) realised every year.

The Government has long been aware of this problem and efforts have been made to solve it. The difficulties and obstacles however are numerous. Preparation of the Five Year Plan provided an opportunity of reconsidering this problem and recommending a re-organisation of sea transport in order to provide the solution.

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

1) Strength of the national fleet

At the end of the year 1966 the fleet comprised 19 vessels with a gross tonnage of 53,898 tons (deadweight 72,278 tons)

These vessels belong to various firms and companies, the largest of which is the Compagnie Marocaine de Navigation, in which the State has a majority shareholding.

	Number of vessels	Tonnage
COMANAV	8	39,314
Maritime consortium	2	2,190
C.G.M.A. (Subsidiary of C.G.T.)	2	2,883
SOFRUMA	1	3,214
C.G.A.	1	1,444
Cherifian Navy	1	1,107
Shell	1	206
Sundry	3	3,540

The merchant navy was increased over the three year period first by the IBN BATOUTA car ferry (LIMADET Company) under the tourist development programme and secondly by nine new units, mainly fruit cargoes, which practically double the freight capacity under the Moroccan flag of fruit and vegetables. On the eve of the Five Year Plan therefore the Moroccan flag comprises 29 units.

In addition to these purchases there is another project for building a phosphate vessel and for purchasing a passenger ferry with a capacity of 100-110 passengers for crossing the Straits.

2) Share of the national flag in maritime trade

2.1 - Detailed figures

The tables below summarise the pattern of the various rates of participation of the Moroccan fleet.

YEAR	Percentage of imports	Percengage of exports	Percentage of exports excluding phosphates
1963	9.56 %	2.44 %	4.29 %
1964	7.30 %	1.91 %	6.22 %
1965	3.80 %	1.30 %	4.50 %
1966	4.00 %	2.00 %	7.1 %

Percentage of citrus fruit exports (1965-1966)

Moroccan flag	12.28%
Moroccan charters	19.84%
Total	32.12%

Thus the share of the Moroccan flag has regularly decreased in percentage, except in 1966 when the situation improved slightly.

There was also a decrease as shown in the tables below, in absolute values:

(in thousands of tons)

YEAR	IMPORTS	EXPORTS	TOTAL TRAFFIC
1963	211	262	473
1964	207	237	444
1965	120	201	321

This situation, although improving gradually in 1966 and 1967 as a result of the expected extension of the fleet, is nevertheless a cause for concern.

2.2 - The reasons for this situation

The reasons for this situation are many and are symptomatic of the difficulties which any young industry experiences:

- the habit of importers and exporters relying on certain companies has no doubt not encouraged, or has even halted, the setting up of new companies;

- certain importers and exporters are often obliged to give preference to vessels of a given company or flag;

- freight and insurance rates offered by foreign companies are often lower than those offered by Moroccan companies; in fact:

  - competition is fierce on freight markets and over-capacity is considerable;

  - foreign companies' greater strength and longer experience has enabled them to reduce their costs more than the young Moroccan companies have been able to;

  - rates practiced by Moroccan insurance companies compared with British tariffs, for example, are much higher.

An immediate answer to all these problems can scarcely be found. There can only be a long-term solution provided the Government makes patient efforts to encourage and stimulate activity in the sector. This is the purpose of the new outline-law which has been proposed.

II - THE POLICIES

Hitherto sea-transport has been governed by the Dahir of 25th September 1962, the aim of which was to oblige by law all enterprises to use vessels of the national fleet for transportation of their imports or exports. The Dahir laid down that:

- imports and exports by sea should be transported by Moroccan vessels or ships chartered by Moroccan nationals (in the ratio of 40% for imports and 30% for exports) for specific products;

- enterprises or companies in which the State has a shareholding should send the whole of their freight transport, either imports or exports, by the Moroccan merchant fleets;

- the chartering of foreign vessels is subject to prior authorisation.

- infringement of this Dahir would be subject to penalty.

Experience showed that this Dahir was impracticable. It was therefore decided to abrogate this Dahir in favour of new regulations better adapted to the situation where there is a larger merchant fleet and the existence of the State body O.E.C. with a monopoly of overseas trade in respect of several products.

The new regulations stipulate that:

- Under the authority of the Director of the Merchant Navy, first the administrations, offices, public undertakings, the mixed economy companies and concessionaires and secondly the national ship owners should come to transportation agreements among themselves;

- Should the conciliation procedure fail an Order from the Council of Ministers will specify the provisions to be taken to ensure the necessary co-ordination;

- Freight transport by sea from one port to another in the Kingdom shall be confined to Moroccan vessels;

- Implementation orders will specify the goods to be partially transported on behalf of private importers or exporters in the ratio of 40% imports and 30% exports. Provision shall be made for exceptions to this rule.

It is to be hoped that these new provisions will ensure during the Five Year Plan a full utilisation and rapid expansion of the Moroccan Merchant Navy.

III - THE PROGRAMME

The State will give aid to shipowners who feel the need to enlarge their fleet or to new companies being set up. The State can encourage these initiatives by making such schemes subject to the provisions of the Investment Code. It was not possible however to assess the amount of these investments or the corresponding new tonnage.

1,250,000 DH however are scheduled for completion of various schemes incorporated under the Three Year Plan (excluding 700,000 DH for a shipping school).

These investments can be broken down as follows:

1968:	844 thousand DH
1969:	406 "

C - SEA FISHING

With its long coast-lines and access to two seas - the Atlantic Ocean and the Mediterranean - Morocco is well placed among maritime nations in respect of fishing, some 300,000 tons of fish being unloaded in 1966.

The incentivation measures adopted by the public authorities during previous Plans have been unable to prevent this sector remaining basically privately controlled and at the same time stagnant. The Five Year Plan aims at analysing the causes of this situation and to provide the remedies for it.

I - EVALUATION OF THE THREE YEAR PLAN AND SITUATION ON THE EVE OF THE FIVE YEAR PLAN

The section of the Three Year Plan concerning fishing incorporated, in the programme for the years 1965-1967, various low-cost operations. The total amounts, which also had to be shared with the Merchant Navy were in the region of 3 million DH and enabled schemes to be carried out concerning the supervision of fishing, oyster-breeding and sea training (setting up a shipping school). By using the carry-overs from the 1960-1964 Plan it was also planned to complete the Fishing Institute. All these credits were committed and the schemes are all being completed.

These schemes however were still unsuccessful in solving the difficulties caused by the many varieties of fishing.

1 - Industrial fishing

1.1 - Sardine fishing

From beginning to end of the production process the obstacles encountered are the following:

- Fishing fleets are characterised by their small tonnage and craft-industry management. Sea fishermen are paid on a proportional basis (40% of the proceeds from the catch going to the owner and 60% to them) which leaves them an-inadequate return.

Canning factories are working under their production capacity and exports have scarcely increased since 1960 (1,300,000 tins in 1966 as in 1960).

Prices in fact are uncompetitive and Morocco is only able to sell its output because of favourable trade agreements. All the elements of the cost price are responsible: the cost of fresh fish and tins is too high, marketing costs excessive etc....

- fish meal factories are also under employed. There is however a very considerable overseas market potential.

1.2 - Tunny fishing

Tunny fish is caught at the moment by means of:

- fixed coastal fisheries (tunny nets)

- craft-industry means, with equipment used from boats offshore.

No increase in the tonnages unloaded can be expected in this limited field; there has even been a drop in exports of tinned tunny fish (62,000 crates in 1966 against 95,000 in 1960).

2 - Fresh fishing

This type of fishing is intended for immediate consumption.

At the moment the fishing grounds close inshore are being rapidly drawn and vessels are inadequately equipped to venture far from the coast. The domestic market is stagnant and consumption per head is low (1.5 kilo in 1966). Overseas markets have not been explored.

II - POLICY TRENDS

The question was whether, in view of the lack of dynamism which is characteristic of this vital sector from an economic and social point of view, as it employs considerable labour concentrated in the coastal towns, the State should not intervene directly and take over responsiblity for production and marketing through a specialised Office which would be set up side by side with existing units.

This solution, at first sight the most attractive because it would enable costs to be reduced as a result of the vertical integration of the fishing units and canning factories, should be studied during the Five Year Plan.

The Public authorities will also aid the industry to improve its working conditions by means of two new provisions (see appendix) relating to Fishing Co-operative Companies, the first specifying the trade law regulations to which they are subject and the second, proposing a standard set of articles of association for these companies.

It was obvious in fact that the medium tonnage units which the fishing fleets specifically needed, could not be viable under the present system of management (employer ship-owner and seamen-fishermen sharing the proceeds from the catch in a determined proportion).

By contrast the co-operative system encourages larger vessels and leaves partners with a higher income than they could earn as wage-earning employees. This new system, it is hoped, should contribute to solving the problems outlined above:

- by exerting price pressure on tinned fish;

- by encouraging the search for new grounds off the African coasts for example for tunny and for new types of fishing.

- by trying to enlarge the domestic market by publicity campaigns encouraging fish consumption in certain pilot areas.

III - THE PROGRAMME

This chapter specifies how the policies outlined above will be given shape under the Plan and lists the credits to be provided for this purpose.

1 - Fishing co-operatives

1.1 - Co-operatives at Safi and Agadir

4 fishing boats for industrial fishing (sardine and tunny)
Total cost: 4 x 1,200,000 DH = 4,800,000 DH
Equipment bonus (15%) 720,000 DH
Jobs created 4 x 13 = 52 sailors

Vessels will be purchased in two stages: 1968 then 1970.

1.2 - Northern region sea fishing co-operatives

6 30 ton gross weight sardine boats.
Total cost: 235,000 DH x 6 = 1,410,000 DH
Equipment grant (15%)
Same observation as above concerning planning of purchases.

2 - Sales promotion campaign

In conjunction with the Northern co-operatives a campaign will be launched to encourage the consumption of fish in a few selected centres inside the country.

Cost of project: 30,000 DH x 6 = 180,000 DH , corresponding to the purchase of 6 lorries.

To these credits should be added a balance of 95,000 DH from the Three Year Plan which the Institute of Fishing could utilise in 1968.

SUMMARY TABLE

Amount of credit (in 1,000 DH)

Type of scheme	1968	1969	1970	1971	1972	Total
Fishing co-operatives at						
Safi and Agadir	360	-	360	-	-	720
in the North	106	-	106	-	-	212
Sales promotion campaign	90	-	90	-	-	180
Completion credits	95	-	-	-	-	95
Total	651	-	556	-	-	1,207

As far as fishing co-operatives are concerned the credits mentioned here refer only to the equipment grant. These figures may be increased if the co-operative system is more successful than anticipated.

D - ROADS

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

Morocco is endowed with a good road system, the density of which is adequate in view of the level of economic development which the country has achieved and road traffic needs.

The present structure (situation at 1.1.68) is described in the table below.

	LENGTH (Km)	
	Built, including surfaced	
Main roads	7,214	6,819
Secondary roads	5,868	5,368
Third class roads	11,052	7,653
Total	24,134	19,840

The budget shown below only concerns some of the road network schemes carried out in the three year period, certain of which were the responsibility of the local communities.

The table below shows the budget for utilisation of the credits allocated under the three year period.

(in 1,000 DH)

Heading	Credits available	Allocations at 31.12.67
Main and secondary roads	46,405	44,860
Tourist routes	20,287	19,391
Third class roads		
Sidi Slimane network	15,898	13,952
Other networks	38,117	38,012
Mining tracks	343	105
GRAND TOTAL	121,050	116,320

This sector thus achieved the targets laid down by the Plan. All schemes were carried out and at 31st December 1967 a mere 4% of the total credits were still outstanding.

All schemes carried out represent an increase of 541 km of main and secondary roads (including 437 km surfaced) and 730 km of third class roads (including 710 km surfaced), or increases of 4% and 6½% respectively compared with the previous situation.

II - POLICY TRENDS OF THE PLAN

An exact assessment of the road infra-structure needs depends largely on knowing the composition of road traffic and its future growth. Lacking detailed information, an attempt was made simply to forecast by various methods (number of cars, registered, fuel consumption, vehicle assembly) the increase in overall traffic during the Five Year Plan. A rate of 3% was adopted.

The principles which governed preparation of the road programme are the following:

1) Priority was given to schemes aimed at maintaining the country's road structure and adapting the highways to the increasingly heavy traffic.

2) In conjunction with this extensive maintenance programme the extension of various networks met specific objectives:

- Economic objective of national importance:

Construction of a number of major inter-regional highways already begun, will be continued: R.S. 501 MARRAKESH - AGADIR; R.S. 512 TAN - TAN - TARFAYA; R.S. 133 KHOURIBGA - BENI-MELLAL.

- Touristic objective of national importance

Work previously carried out along the main Mediterranean highway will be continued: section TANGIERS - FNIDEQ.

- Socio-economic objectives of regional importance

The rate of extension of the third class road network carried out under the Three Year Plan will be maintained.

- Economic objective of regional importance

The specific road infra-structure programmes in connexion with the setting up of agricultural regions or with the working of new mining deposits will be actively pursued.

This new building programme will therefore depend largely on the needs of the productive sectors: agriculture, industry and tourism .

III - THE MEASURES

By its very structure and the very different degrees of development in the various regions, the road network should meet simultaneously two fundamental requirements:

- To open up on a national level those regions farthest removed from the main centres of activity and, on a regional level, to link the centres which are far from the constructed network, in other words to continue the linkage of the national and regional road infra-structures;

- To anticipate in the heavy density and industrialised areas, the needs of a continually increasing traffic.

These two requirements should take the form at design level of two different concepts: building and adaptation which both need different study methods.

The design programme should be based on a thorough knowledge of the regional development programmes. The road should be considered as one of the basic tools for the present or future economic development of the region. Specific projects should therefore be given precedence and should provide the regions concerned, rationally and within a given period, with an infrastructure suited to their needs.

The adaptation programmes by contrast should call, with as wide a basis as possible, on the most up-to-date means and methods of making a qualitative and quantitative census of both present and future urban and inter-urban traffic. We would simply mention here the traffic problems which will in the fairly near future beset Casablanca and the whole of the future conurbation of Rabat - Casablanca. The very complex studies which will have to be carried out require a knowledge of detailed statistical data which can only be obtained by continued efforts to set up major investigation facilities, comprising first, an automatic road census system and secondly traffic surveys.

IV - THE PROGRAMME

The programme, drawn up along the lines as outlined above, comprises an investment expenditure of 162,764 million DH, broken down as follows:

Main and secondary roads	60,550	thousand DH
Tourist routes	10,225	"
Third class roads	40,000	"
Specific projects	51,700	"
Mining tracks	238	"
Heavy equipment and machinery	24	"
Studies and experiments	27	"
Total	162,764	"

1 - Main and secondary roads

A considerable proportion of the credits allocated will go towards major highway repair operations and the reconstruction of bridges, tunnels, etc., accounting for 40 million DH.

New schemes concern mainly the development of two major traffic axes, the R.S. 501 Marrakesh-Taroudant, which will be completely finished (cost: 6,950,000 DH) and the Tan-Tan-Tarfaya section of the R.S. 512 Bou Izakarn-Tarfaya highway (6 million DH). In addition the Khouribga Beni-Mellal (R.S. 133) link will be completed, accounting for 2.6 million DH and a credit of 5 million DH has been allocated for completion of the various schemes started under the Three Year Plan; the total amount incorporated under this heading is therefore 60.55 million DH.

Investments on main and secondary roads

a) Completion of the Three Year Plan	5,000	thousand DH
b) Maintenance operations	40,000	"
c) Economic Development		
R.S. 501 Marrakesh Taroudant Completion	6,950	"
R.S. 512 Bou Izakarn Tarfaya Priority development of the Tan-Tan Tarfaya section	6,000	"
R.S. 133 Khouribga Beni-Mellal	2,600	"
Total economic development	15,550	"
TOTAL MAIN AND SECONDARY ROADS	60,550	"

2 - Touristic routes

Three routes, construction of which began under the Three Year Plan, will be completed under the present Plan:

R.S. 704 Tangier Fnideq	7,000	thousand DH
R.P. 31 Marrakesh Zagora	1,500	"
Northern perimeter of Fez	150	"
Various	1,575	"
	10,225	"

3 - Third class roads

A credit of 41,155 million DH was scheduled for this type of scheme. In addition the completion credits of the Three Year Plan amount to 3,845,000 DH. These credits will be added to the sums allocated for building or major maintenance schemes for third-class roads carried out by the provincial authorities from their own budgets.

Completion of the Three Year Plan	3,845	thousand DH
New credits	41,155	"
	45,000	"

4 - Specific schemes

Road construction schemes are being continued in several areas (Sidi Slimane, Mechra Bel Ksiri, Sidi Allal Tazi, etc.) The DERRO project instituted a co-ordinated road network development programme in the Riff with priorities being indicated. Furthermore the working of the phosphate deposits at Ben Guerir will require construction of a road costing 1.2 million DH linking the mine with the remainder of the network. Finally 7 million DH have been allocated for completion of the Safi infra-structure.

- Mechra Bel Ksiri and Sidi Allal Tazi networks	20,000	thousand DH
- Loukkos	1,500	"
- DERRO project	22,000	"
- Ben Guerir phosphate deposits	1,200	"
- Safi infra-structure	7,000	"
Total specific schemes	51,700	"

5 - Mining tracks

A credit of 238,000 DH was allocated under the Five Year Plan to aid mining companies in building tracks providing access to deposits.

6 - Heavy equipment and machinery

The 24,000 DH allocated are additional credits.

7 - Studies and experiments

27,000 DH are allocated under this heading for 1968

SUMMARY TABLE OF ROAD INVESTMENT

1968 - 1972

(in 1,000 DH)

	1968	1969	1970	1971	1972	Total
MAIN AND SECONDARY ROADS						
Completion of the Three Year Plan	5,000	-	-	-	-	5,000
Maintenance operations	4,000	8,500	7,650	8,250	11,600	40,000
Economic development						
R.S. 501 Marrakesh Taroudant (completion)	500	1,000	2,450	2,000	1,000	6,950
R.S. 512 Bou Ixakarn Tarfaya priority development of the Tan-Tan Tarfaya section	1,000	1,500	1,500	1,500	500	6,000
R.S. 133 Khouribga - Beni-Mellal	1,000	1,300	300	-	-	2,600
TOTAL MAIN AND SECONDARY ROADS	11,500	12,300	11,900	11,750	13,100	60,550
TOURIST ROUTES						
Completion of the Three Year Plan	1,575	-	-	-	-	1,575
R.S. 704 Tangiers - Fnideq completion	1,000	2,000	2,000	2,000	-	7,000
R.P. 31 Marrakesh - Zagora Completion	1,000	500	-	-	-	1,500
Fez Northern perimeter completion	150	-	-	-	-	150
TOTAL TOURIST ROUTES	3,725	2,500	2,000	2,000	-	10,225
THIRD CLASS ROADS	3,845	-	-	-	-	3,845
Completion of the Three Year Plan						
New credits	2,005	6,560	8,500	9,200	9,890	36,155
TOTAL THIRD CLASS ROADS	5,850	6,560	8,500	9,200	9,890	40,000

Cont..

	1968	1969	1970	1971	1972	Total
SPECIFIC SCHEMES						
Mechra Bel Ksiri and	1,140	1,560	1,600	1,800	2,000	8,100
Sidi Allal Tazi networks	2,860	2,440	2,000	2,200	2,400	11,900
Loukkos	1,500	-	-	-	-	1,500
DERRO project	1,000	4,000	4,500	5,500	7,000	22,000
Safi infra-structure	7,000	-	-	-	-	7,000
Ben Guerir	-	-	1,200	-	-	1,200
TOTAL SPECIFIC SCHEMES	13,500	8,000	9,300	9,500	11,400	51,700
MINING TRACKS	238	-	-	-	-	238
Heavy equipment and machinery	24					24
Studies and experiments	27					27
GRAND TOTAL	34,864	29,360	31,700	32,450	34,390	162,764

E - ROAD TRANSPORT

This chapter is devoted primarily to public transport, in other words to enterprises whose main business is the transport of passengers or freight on behalf of others. By contrast, private transport is undertaken by private individuals or companies acting on their own behalf.

The Government controls public transport (observance of technical standards, issuing transport licences, etc..). It organises specifically freight transport within the framework of the National Transport Office (O.N.T.) which makes available to transport agents and their clients the bus and coach stations where supply and demand is adjusted.

All transport enterprises however are owned by physical persons or private companies. If a growth in traffic or new needs necessitate the purchase of new transport facilities, their financing will be borne from private savings.

The plan accordingly only lists the actual measures for ensuring the proper functioning of transport systems and the rational development of this sector but does not allocate new public credits.

I - THE SITUATION ON THE EVE OF THE PLAN

1 - Passenger traffic

The situation in 1966 is shown by the table below:

Number of enterprises	1,004
Number of coaches/buses	1,981
Number of places offered	71,117

The administrative management of this network is the responsibility of the Road Transport Department (control of transport agents' files, technical checks on buses, road control). The volume of traffic in this network and its future growth cannot be assessed under the present state of its organisation. The National Transport Office receives no statistical data in this respect.

A more detailed knowledge of this sector is therefore essential for any effective action to be taken by the government.

2 - Freight traffic

The authorised public network in 1966 comprised 1,246 enterprises operating 2,125 lorries, representing a total of 19,000 tons.

The quantities transported under the O.N.T. are increasing rapidly (6% over the period 1961-1966). This rate will probably be maintained or even increased as citrus fruits and sugar beet were obligatorily taken over by the Office after 1966.

II - THE MEASURES

1) Passenger traffic

The need for Government action will be felt in many fields. For example:

- There should be a greater degree of safety (more thorough technical control), a minimum standard of comfort and application of tariffs based on the actual transport costs.

- There should first be a better utilisation of existing facilities by relieving congestion from overloaded roads (parallel rail transport, more taxies) and by providing the less privileged routes with the necessary facilities (lines linking centres of less importance to eliminate transport of passengers by lorry and cart) and secondly the number of vehicles should be increased in relation to new needs. One of the prerequisites for the success of this co-ordination programme is obviously a better awareness and better control of the sector.

2) Freight traffic

To adapt itself to the new needs an additional capacity of 4,500 tons will be necessary during the Five Year Plan.

Better utilisation of the O.N.T. vehicles would probably reduce this estimate to 3,000 tons or approximately 6000 tons per annum. Gains in productivity should specifically result from the regulations which in 1967 modified the current regulations (Dahir of 12th November 1963 and Order of 4th December 1963) because of the more equitable allocation of transport licences. Licences granted will be renewable, subject to observance of the specified technical standards. These new regulations will thus enable the public vehicle network (which at present is in an advanced state of decrepitude) to be replaced at a normal rate.

Similarly, in respect of private transport a new order which is at present being studied will reform the present legislation to ensure greater flexibility in certain respects:

- Issue of driving licences;
- Imposing penalties in relation to the gravity of the offence;
- Recourse open to the offender.

Other measures which have not yet been governed by regulations will be studied during the Plan:

a) To encourage specialisation in the public transport facilities (heavy carriers, containers, tankers, temperature-controlled lorries).

b) To limit the private vehicle sector to the minimum needs of the sector concerned in order first to avoid the growth of "clandestine" transport (or transport carried by persons with no official business to do so) and secondly to avoid wasting transport facilities (such as for example vehicles returning empty from companies with rail links). The majority of freight should be entrusted to the public transport facilities, thus reducing their costs. Transportation charges could then be reduced accordingly. Firms and companies should only have the vehicles which are essential to their proper functioning.

c) To avoid unnecessary overlapping of effort (equipment unused or used below capacity) and providing;for growth in road traffic by advising the public and semi-official sectors to give their freight to professional transportation agents rather than providing their own facilities.

d) Finally transportation companies should be organised (firms, co-operatives, work legislation) to achieve improved management by adapting themselves to the needs of the general economy and to ensure a closer and more effective co-operation between the O.N.T. and public transportation companies and particularly to determine the effective costs of transport in order to draw up an economic rates list.

3 - Highway Code

A complete review of the 1953 Highway Code is at the moment being prepared. The project being studied is in alignment with accepted international standards and will be adapted to suit the country's needs.

Pending final drafting of this Code and inview of the increasing number of traffic accidents which constitute a not inconsiderable drain on the economy, a number of safety measures have been or will be adopted for road users (condition of tyres, wearing of crash-helmets obligatory for motor-cyclists, frequent medical check-ups for heavy-lorry drivers, etc...).

The measures should appreciably reduce the accident rate over the five year period.

F - RAILWAYS

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

The system controlled by the National Railways Board extends over 1,770 kilometres of track including 161 kilometres of double lines, 730 kilometres are electrified, the remainder being operated by diesel engines.

In spite of the relatively small extent of the network, the National Railways Board traffic is heavy and is geared mainly for passengers, to long distance transport and, for goods, to bulk transport, in other words not only mining products but also cement, fertilisers, sugar, cereals and citrus fruits.

The credits allocated to the O.N.C.F. under the Three Year Plan amounted to 54 million DH. Added to this amount are first the carry-overs from the Five Year Plan 1960-1964 (4,26 million DH) and secondly the credits allocated for the rail link to the Safi chemical complex and incorporated on the basis of infrastructure for specific schemes (8.45 million DH). Finally, the Board's current account surplus balance under the Three Year Period contributed to financing its investments (4.88 million DH).

All these credits (71.59 million DH) were committed and paid as at 31st December 1967. The Board will have achieved its objectives within the period envisaged under the Three Year Plan.

These investments were intended mainly:

- to meet the O.C.P. traffic growth by purchasing special tip wagons, complete the double track between Sidi Aidi and Khouribga and provide a rail link to the new centre at Ben-Idir.

- to provide a link with the chemical complex at Safi by purchasing wagons for transporting pyrrhotine and to build a branch line.

The O.N.C.F. was also able to make a start on replacing its rolling stock (purchase of 8 diesel electric locomotives and 20 passenger carriages) and its installations (improving the line between Sidi Kasem and Tangiers, building a new depot at Casablanca-Roches-Noires); this replacement programme will be continued under the present plan.

II - THE PLAN'S POLICIES

Observation of traffic trends between 1938 and the present day shows that the number of tons/kilometre (t.km) is increasing by an average of 5% a year. This rate will be maintained during the next five years. This will result in an absolute increase of 750 million t.km, traffic increasing from 2,213 million t.km in 1966 to 2,965 million t.km in 1972.

A direct estimate of the increase in traffic can be obtained from assessing the new traffic resulting from projects now being approved or undertaken, and this can be put at 680 million t.km.

Added to this new traffic are other factors which, although certain, are nonetheless difficult to assess concerning the transportation of cereals, citrus fruits, wood etc.. Finally some of the many projects now being studied will be put into effect during the five year period and will further increase traffic (assessed at 500 million t.km).

An expansion of some 750 million t.km is therefore a very reasonable forecast.

The O.N.C.F. will therefore have to meet a definite increase in traffic and its rolling stock, including engines and wagons, will be increased accordingly. This new rolling stock will first replace very old equipment the maintenance costs would be prohibitive. At the same time the network will be maintained and adapted to the needs of the country's economy in accordance with the general policies adopted by the Plan in relation to infra-structure. Certain sections of the track between Sidi Kacem and Tangiers will therefore be strengthened, as its present worn condition imposes speed restrictions and is prejudicial to the safety of staff and rolling stock.

The O.N.C.F. programme is therefore characterised by the importance given to maintenance operations. Certain extensions or modification of the system, however, are envisaged in connexion with the industrial projects. The most important of these and the only one which is mentioned in this chapter is the linking of the new phosphate deposits at Bengherir to the remainder of the network.

To summarise therefore the O.N.C.F. will have three main objectives:

1) to adapt its network to the needs of the economy
2) to replace and strengthen its rolling stock
3) to meet the railway infra-structure needs of the industrial and mining sectors.

III - THE MEASURES

The management system of the O.N.C.F. will be liberalised and will approach as nearly as possible that of an industrial or commercial undertaking.

This reform presupposes that the Board no longer has everlasting recourse to the State for financing its investments. It will have to find its own means of financing and provide for its own reimbursement of capital, annuities and interest. This will result in greater independence and therefore greater flexibility in the daily management of the Board and doubtless in a wiser investment policy, in other words conforming more to economic laws.

If this solution is adopted however it must be expected that tariffs will be amended and that exceptions made in favour of certain types of product or users will be reviewed.

These complex problems will be studied further at the beginning of 1968.

IV - THE PROGRAMME

The overall amount of credits allocated to the railways amounts to 175.4 million DH broken down as follows:

1st objective:	to adapt the system to the needs of the economy	23,500,000 DH
2nd objective:	to replace and strengthen rolling stock	
	1 - new acquisitions	54,000,000 DH
	2 - payments due under the Three Year Plan's schemes	27,900,000 DH
3rd objective:	to link infra-structure with the projects (railway link to the mine at Ben Guerir)	70,000,000 DH
	Total	175,400,000 DH

1 - Adapting the system to the needs of the economy

The first objective, "adapting the system to the needs of the economy", comprises in fact a series of operations aimed at maintaining present installations in good order and where necessary replacing or modernising them.

a) Stations and branch lines

This work consists of:

- laying new track and extending existing track
- modification of existing networks to facilitate manoeuvring operations
- participation in laying private branch lines in order to attract industrial clients to the railways.

The passenger sztions at Casablanca - Meknes - Oujda - Sidi Kacem - Sidi Yahia are among those where work will be carried out.

Cost of project: 3,500,000 DH.

b) Track improvement

This involves maintaining track in good condition in the areas around Casablanca, Rabat, Sidi Kacem, Meknes, Taza.

Cost of project: 4,000,000 DH.

c) Strengthening the line between Sidi Kacem and Tangiers

The bad condition of this track hinders the proper movement of traffic and constitutes a danger for personnel and goods. Out of 200 km of track 90 km were strengthened under previous programmes and 110 km therefore remain to be strengthened. The total cost of the operation is 20 million DH, 5 million of which will be spent under the Plan.

d) Machinery, equipment, tooling and workshops

Machinery and tools will be partially replaced and new units provided in relation to the increase in the rolling stock envisaged under the Plan.

The repair workshops will be improved and reorganised. A 25-ton mobile bridge will be bought for Casablanca Passenger Station and the present depot at Ksar El Kebir will be removed to Sidi Kacem.

Finally the Board will purchase special equipment to speed up breakdown repair procedures and traffic security.

Cost of project: 3,000,000 DH.

e) Various work

Under this heading are combined the schemes which the Board is carrying out constantly over the whole network. Expropriations demarcations, closures, service buildings, accommodation etc..

Cost of project: 4,000,000 DH.

f) Washing sheds and extending the Casablanca Port station

In order to meet the increasing needs of port business, 4 million DH will be allocated to extending the Casablanca Port Station and developing a washing shed area.

The table below summarises for the whole of the first objective the investment expenditure scheduled under the Plan.

Work on stations and branch lines	3,500	thousand DH
Track improvement	4,000	"
Strengthening the track Sidi Kacem - Tangiers	5,000	"
Machinery, equipment, tooling and workshops	3,000	"
Various work	4,000	"
Washing shed and extension of the Casablanca Port Station	4,000	"
TOTAL	23,500	"

2) Replacement and improvement of rolling stock

2.1 - New acquisitions

In order to meet the growth in traffic (estimated at 5% per annum) and replace rolling stock which is frequently out-of-date and no longer serviceable, the Board will be purchasing:

- 4 diesel electric 3,600 H.P. locomotives. The saving realised on maintenance costs will enable these engines to be amortised in 15 years (cost 11,000,000 DH);

- 3 electric 2,000 kw locomotives intended for the electrified sections of the system and replacing equipment in use since 1935 (cost 7,000,000 DH);

- 650 wagons of various types to meet the increased traffic and gradually to replace the existing 5,100 wagons which are on average 35 years old. These new wagons will be order on the domestic market (cost 26,000,000 DH).

- In order to meet the requirements of the O.C.P., two sets of 72 wagons for transporting phosphate (cost 10,000,000 DH).

2.2 - Payments due under the Three Year Plan programme

These concern the purchase of:

- 8 diesel electric locomotives ordered in 1966
  cost 15,700,000 DH
- 20 wagons and trucks ordered in 1966
  cost: 8,200,000 DH
- 120 wagons and sundry equipment
  cost 4,000,000 DH

The table below summarises all the credits allocated under the second objective.

1) New acquisitions	
- 4 diesel electric locomotives	11,000 thousand DH
- 3 electric locomotives	7,000 "
- 650 wagons of various types	26,000 "
- 2 sets of 72 wagons for transporting phosphate	10,000 "
TOTAL	54,000 "
2) Payments due under the Three Year Plan programme	27,900 "
3) Railway link to deposits at Ben Guerir	70,000 "
GRAND TOTAL	151,900 "

3 - Infra-structure linked with specific schemes (Railway link to the phosphate deposits at Ben Guerir)

Transportation of the phosphate from the new deposit to the port of Safi requires the construction of a 12 km rail link connecting the new deposit to the station at Ben Guerir. Furthermore the line from Ben Guerir to Safi will be renewed over its entire length and its capacity increased. Including purchase of the necessary rolling stock deriving from the increased tonnages transported, the total investment will amount to 70 million DH.

Finally the table below shows the breakdown of the total amount of credits allocated, or 174.5 million DH by operation and by year.

RAILWAYS

SUMMARY TABLE OF INVESTMENT 1968-1972

Unit : 1,000 DH

Description of project	1968	1969	1970	1971	1972	Total
1 - Adapting the system to the needs of the economy						
- Work on stations and branch lines	700	700	700	700	700	3,500
- Track improvement	800	800	800	800	800	4,000
- Strengthening of Sidi-Kacem - Tangiers line	1,000	1,000	1,000	1,000	1,000	5,000
- Machinery, equipment tools and workshops	600	600	600	600	600	3,000
- Various work	800	800	800	800	800	4,000
- Washing shed and extension of the Casablanca Port Station	-	-	3,000	1,000	-	4,000
Total 1 - Adaptation of the system	3,900	3,900	6,900	4,900	3,900	23,500
2 - Replacement and Improvement of the rolling stock						
2.1 New acquisitions						
Purchase of 4 diesel electric locomotives	1,000	2,500	2,500	2,500	2,500	11,000
Purchase of 3 electric locomotives	-	500	2,000	3,500	1,000	7,000
Purchase of 650 wagons of various types	2,000	4,000	6,000	7,000	7,000	26,000
Purchase of 2 sets of 72 wagons for transportation of phosphate	1,000	4,000	5,000	-	-	10,000
Total 2.1 New acquisitions	4,000	11,000	15,500	13,000	10,500	54,000
2.2 Payments due concerning purchase of 8 diesel electric locomotives ordered in 1966	7,600	2,200	2,000	2,000	1,900	15,700
- 20 trucks & wagons ordered in 1966	3,900	1,100	1,100	1,100	1,000	8,200
- 120 wagons and various equipment	4,000	-	-	-	-	4,000
Total 2.2 Payments due under Three Year Plan operations	15,500	3,300	3,100	3,100	2,900	27,900
TOTAL 2. Replacement and Improvement of rolling stock	19,500	14,300	18,600	16,100	13,400	81,900
3. Railway link to Ben Guerir mine	5,000	10,000	15,000	20,000	20,000	70,000
GRAND TOTAL	28,400	28,200	40,500	41,000	37,300	175,400

G - CIVIL AVIATION

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

Morocco has a fairly extensive and a rapidly expanding aeronautical infra-structure which, at 1.1.1968, stands at seven commercial airports capable of taking medium distance aircraft, added to which is the international airport at Rabat-Sale where the recently extended runway now takes four-engined long-distance jets.

Mcrover, Royal Air Maroc, the national undertaking whose fleet consists mainly of 4 Caravelles, already accounts for a considerable share of the passenger transport arriving in or leaving Morocco and, by its dynamic policies, constitutes a valuable instrument for the winning of tourist markets. At a time when tourism is one of Morocco's development priorities and in order to continue the considerable progress made under the Three Year Plan, the next five years will be devoted to extending the aeronautical infra-structure still further.

The main operations carried out during the 1965-1967 period were as follows:

1) Directorate of Aviation

The Three Year Plan allocated to the Directorate of Aviation credits totalling 31 million DH

This amount however appeared to be inadequateto meet requirements. The appropriation Bill for the year 1967 provided for an additional credit of 3.2 million DH aimed at financing urgent work which was not included under the Plan. Finally a credit of 7.3 million DH was allocated under the budgetry heading "touristic infra-structure" for extension of the runway at Rabat-Sale.

Including carry-overs from the year 1964, the total credits allocated for Civil Aviation during the three year period amounted to 47.3 million DH.

Implementation of the Three Year Plan is summarised in the following table.

(in 1,000 DH)

	Credits available	Credits allocated 31/12/1967
1) Operations of the Three Year Plan		
Airports	17,968	16,968
Meteorological and aeronautical equipment	15,512	13,512
Sundry	3,350	3,350
total Three Year Plan	36,830	33,830
2) Operations outside the scope of the Plan		
Airports	9,600	9,600
Equipment	860	860
Total, outside the Plan	10,460	10,460
GRAND TOTAL	47,290	44,290

A smaller proportion however, was actually issued, mainly in connexion with the reconversion of Nouasseur.

At 31st December 1967, the Three Year Plan had achieved the main lines of its programme and the majority of the work was completed, with the exception of the Regional Control Centre and the Central Telecommunications Bureau which will be continued under the Five Year Plan. Even more, the Three Year Plan's targets will be exceeded as considerable credits not incorporated under the Plan were allocated to Civil Aviation. This policy will have made up some of the accumulated delay since 1961 when responsibility for Civil Aviation matters was transferred to the Moroccan Government.

It should also be noted that during the last two years of the three year period, studies were carried out to open the airport at Casablanca Nouasseur to civil traffic and to transfer there the industrial installations of Royal Air Maroc. These studies will take concrete form under the Five Year Plan.

2) Royal Air Maroc

Since its establishment the national undertaking has grown considerably. In 1966 the Company carried more than 40% of general passenger transportation in Morocco. This considerable achievement necessitated further facilities, specifically the purchase of a fourth Caravelle aircraft (16.4 million DH) and setting up new agencies in Marseille, Paris and Casablanca.

II - THE PLAN'S POLICIES

The Civil Aviation sector is growing rapidly. Movements of residents are increasing at a rate of 10% a year. Civil Aviation should be conceived above all, however, as a tourist service (the number of tourists visiting Morocco is increasing by an average of 15% a year.

This is why Morocco at the end of the Plan will have two international airports capable of taking long-haul aircraft: Rabat-Sale and Casablanca-Nouasseur (the work begun under the Three Year Plan will be completed before 1972). This policy meets the desire both for economy and efficiency. From these two points tourists will be able to proceed to the various holiday resorts by road or by the internal air services.

The runway and air terminal infra-structure, however, cannot be conceived without the navigational aid equipment which is an essential part of it. Morocco is moreover obliged to carry out this programme:

- because of its international obligations(recommendations of O.A.C.I. (International Civil Aviation Organisation) and the role attributed to Casablanca navigational control at regional level;

- and because of the need to interrelate civil and military flights over the national air space (Order of 18.1.67).

The most important among this equipment, installation of which was begun under the Three Year Plan, is the Regional Control Centre (C.C.R.) and the Central Telecommunications Bureau (B.C.T.). The cost of the second section of this work will be 18 million DH.

The meteorological infra-structure will be completed both to meet the specific requirements of air naviagion and those of many sectors of the economy, particularly agriculture.

III - THE MEASURES

Morocco is one of the few countries in the world where no aiport tax is levied on departing passengers. This situation should be reviewed and should scarcely prejudice the tourist trade but, on the contrary, would constitute a not inconsiderable source of revenue for the Exchequer.

IV - THE PROGRAMME

The programme adopted for Civil Aviation incorporates schemes in the following two sectors: development and construction of airports and aeronautical and meteorological equipment involving the following sums:

Airports		
Completion of the Three Year Plan	1,600	thousand DH
Main Airports	53,800	"
Secondary airports	1,000	"
Equipment		
Aeronautical equipment	29,000	"
Meteorological equipment	3,600	"
TOTAL	89,000	thousand DH

1) Development and construction of airports

Apart from the completion of operations under the Three Year Plan (1.6 million DH) the projects concern four major airports at Rabat-Sale, Agadir, Marrakesh and Casablanca-Nouasseur and two secondary airports (Rabat-Ville and Al Hoceima).

1.1 - Main Airports

a) Rabat-Sale Airport

Already having a 3,500 m runway designed to take long distance four-engined jet aircraft, the Rabat Sale Airport will be developed first to absorb the peak traffic which is tending to become the rule (extending the traffic movement areas, meteorological observation tower), and secondly to follow the recommendations of the O.A.C.I. in respect of safe landings (installing a high powered night lighting system and a line of approach).

The table below shows the allocation of the credits granted, the total amount of which is 5,600,000 DH.

- Extension of runway areas	2,500	thousand DH
- Various buildings	400	"
- High intensity night lighting system and line of approach	2,500	"
- Meteorological observation tower	200	
TOTAL	5,600	"

b) Agadir Airport

500,000 DH will be allocated for a night lighting system and improvement of the electrical network.

c) Marrakesh Airport

The southern capital's airport will certainly have to cope with increased traffic due to the touristic development of the region. Runway conditions, particularly from the safety point of view, will be improved by installing various electronic improvements: I.L.S. (Installation Landing System), nightlighting lines, etc.

The total amount of credits allocated, 3,400,000 DH, will be spent as shown in the table below:

Technical buildings	1,000	thousand DH
Viability	500	"
Nightlighting system	500	"
Installation of I.L.S.	1,400	"
TOTAL	3,400	"

d) Nouasseur Airport

The provisional passenger handling installations will probably in the very near future become inadequate as a result of the growth of tourism; plans should therefore be studied for building a final air terminal worthy of an international airport. 1 million DH will accordingly be spent on research.

Transfer of the Royal Air Maroc installations at present located at Casa-Anfa will require an expenditure of 13 million DH. Finally reconversion of the base begun under the Three Year Plan will be continued. Expenditure will amount to 28.3 million DH. Finally the guide and navigational aid systems will be transferred (cost 2 million DH).

To summarise, 44.3 million DH will be devoted to the development of what will be the foremost airport in the Kingdom.

Study of the final air terminal	1,000	thousand DH
R.A.M. industrial zone	13,000	"
Base reconversion work	28,300	"
Line of approach and transfer of I.L.S.	2,000	"
TOTAL	44,300	"

1.2 - Secondary airports

These are the airports at Al Hoceima, where the growth in traffic due to increased tourism should be absorbed and Rabat-Ville (completion of the work of the Three Year Plan).

The total amount of work amounts to 1 million DH distributed equally between these two airports.

2 - Aeronautical and meteorological equipment

2.1 - Aeronautical equipment

To ensure air traffic control over Moroccan air space and to operate the various telecommunication systems, Morocco has only out-of-date equipment which is quite inadequate to meet the increased numbers of aircraft flying over Morocco and the messag exchanged and to follow the recommendations of the International Civil Aviation Organisation (O.A.C.I.) in matters of air safety.

A Regional Control Centre (C.C.R.) and a Central Telecommunications Bureau (B.C.T.) will therefore first be set up equipp with the latest technical innovations.

Secondly, it was decided first to complete the equipment of the Air Information Service (S.I.A.) which has been functionin since 1963, and secondly to purchase search and rescue equipment for the Search and Rescue Service (S.A.R.) (Chicago Convention, ratified by Morocco in 1965).

The credits allocated under the heading of various aeronautical equipment are intended for the improvement of the fixed telecommunication system, for equipping control towers and for installing navigational aids.

Finally in order to meet runway safety imperatives, special vehicles will be purchased (fire fighting equipment, ambulances, sweepers, tractors).

Details of the use of the credits allocated to the various operations, the total amount of which is 29 million DH, are show in the table below:

Regional Control Centre (C.C.R.) and Central Telecommunications Bureau (B.C.T.	18,000 thousand DH
Aeronautical Information Service (S.I.A.) and Search and Rescue Service (S.A.R.)	2,000 "
Various equipment	5,000
Special vehicles	4,000
TOTAL	29,000

2.2 - Meteorological equipment

A number of meteorological stations will be built, particularly in the mountain area and the south east and existing centres will be modernised and re-equipped.

The total cost of this meteorological equipment is 3.6 millio DH of which 1.6 and 2 million will be under the first and second headings respectively.

CIVIL AVIATION

GENERAL SUMMARY OF EQUIPMENT CREDITS

1968-1972

(in 1,000 DH)

Description of Projects	1968	1969	1970	1971	1972	Total
I - AIRPORTS						
1. Completion of the Three Year Plan	1,600	-	-	-	-	1,600
1.1 Main Airports						
a) Rabat-Sale						
Extension of the runway area	-	-	2,500	-	-	2,500
Various buildings	-	400	-	-	-	400
High intensity night lighting and line of approach	-	2,500	-	-	-	2,500
Meteorological observation tower	-	200	-	-	-	200
TOTAL - a -	-	3,100	2,500	-	-	5,600
b) Agadir night lighting system and electrical network	500	-	-	-	-	500
c) Marrakesh						
Technical buildings	-	1,000	-	-	-	1,000
Viability	500	-	-	-	-	500
Night Lighting System	-	500	-	-	-	500
Installation of an I.L.S.	-	1,400	-	-	-	1,400
TOTAL - c -	500	2,900	-	-	-	3,400
d) Casablanca-Nouasseur						
Final air terminal (studies)	1,000	-	-	-	-	1,000
R.A.M. Industrial zone	6,500	6,500	-	-	-	13,000
Base reconversion work	27,300	-	1,000	-	-	28,300
Line of approach and transfer I.L.S.	-	-	2,000	-	-	2,000
TOTAL - d -	34,800	6,500	3,000	-	-	44,300
TOTAL 1.1 - Main airports	35,800	12,500	5,500	-	-	53,800

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cont.

1.2 - Secondary airports						
Al Hoceima Airport						
Technical block and service buildings	500	-	-	-	-	500
Rabat-Ville Airport						
Redevelopment work	500	-	-	-	-	500
TOTAL 1.2 - Secondary airports	1,000	-	-	-	-	1,000
TOTAL I - Airports	38,400	12,500	5,500	-	-	56,400
2 - Equipment						
2.1 - Aeronautical equipment						
Regional Control Centre (C.C.R) and Central Telecommunication Bureau (B.C.T.)	5,000	5,000	3,000	3,000	2,000	18,000
- Aeronautical Infromation Service (S.I.A.)	500	500	500	250	250	2,000
- Search and Rescue Service (S.A.R.)						
- Various equipment	1,500	1,500	1,000	500	500	5,000
- Special vehicles	500	500	1,000	1,000	1,000	4,000
TOTAL 2.1 - Aeronautical equipment	7,500	7,500	5,500	4,750	3,750	29,000
2.2 - Meteorological Equipment						
- Construction of meteorological stations	500	500	300	200	100	1,600
- Equipment of meteorological centres and stations	500	500	500	300	200	2,000
TOTAL 2.2 - Meteorological equipment	1,000	1,000	800	500	300	3,600
TOTAL 2 - Equipment	8,500	8,500	6,300	5,250	4,050	32,600
GRAND TOTAL	46,900	21,000	11,800	5,250	4,050	89,000

KINGDOM OF MOROCCO

PRIME MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING AND
THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 14

TELECOMMUNICATIONS

MARCH 1968

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TELECOMMUNICATIONS

The role played by telecommunications in a country's economy is in relation to their service to the public. Investment in this field, particularly in respect of radio broadcasting and television equipment, should not in fact be conceived only in relation to the strictly financial profitability aspect, but should also take into account the general usefulness of the investment.

At present Morocco's telecommunications sytem is providing an entirely satisfactory service to its users in terms of both density and quality. However the speed of technical progress in this sector is so rapid that constant efforts are needed to adapt the system by replacing and improving the existing installations Furthermore, Morocco's inevitable participation in international agreements presupposes certain measures which, because of their importance, will add to the expenditure needed in this sector. State intervention in respect of telecommunications is therefore particularly important and the five year programme provides for the installation of equipment both in telecommunications properly so called and in radio and television broadcasting.

A - POST AND TELECOMMUNICATIONS

The post and telecommunications sector is characterised by its advanced technological level and is an essential instrument for the efficient functioning of the public services, for economic development and for operations in the rural sector.

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

The Three Year Plan 1965-1967 aimed primarily to improve the national broadcasting system and to ensure Morocco's independence in its international relations. These objectives took concrete shape by instituting the following projects:

- Laying a sub-marine Mediterranean cable Tetouan-Perpignan;
- Laying co-axial cables linking several towns;
- Setting up an automatic four line transit sector at Casablanca for inter connecting towns on the automatic system;
- buying back concessions in the ex.Northern Zone which were previously operated by two foreign undertakings;
- bid to reduce rural isolation by providing telephone communications for rural communities.

The following table shows the implementation of the Three Year Plan.

(in 1,000 DH)

HEADING	Available 1965-1967	Commitments 31.12.67	Allocations 31.12.67	
			Total	%
Buildings	6,606	6,606	4,708	71.0
Telephone and telegraph centres	19,482	19,482	11,620	59.6
Urban network and subscriber installations	10,692	10,692	7,026	65.7
Long distance lines	5,528	5,528	5,265	95.4
Cables Safi-Agadir and Safi-Marrakesh	12,440	12,440	9,052	72.8
Radio/T.V. link Zemamra-Marrakesh	39	39	25	64.1
Strengthening the Meknes-Oujda axis	2,381	2,381	2,064	86.6
Mediterranean Cable	27,600	27,600	25,592	92.7
Radio-telephony and radio telegraphy	796	796	796	100.0
Equipment	649	649	569	87.6
Buying back networks and various work	11,090	11,090	11,090	100.0
TOTAL	97,303	97,303	77,807	79.9

II - POLICY TRENDS OF THE FIVE YEAR PLAN

The objectives of the Five Year Plan are based on statistical observations over the past years.

Telephone revenue is increasing by approximately 3% a year. The planned automatic exchange programme should appreciably increase this rate owing to the attraction for the public of the automatic telephone with its many advantages. The telex service has grown much more rapidly, by some 17%. For the years to come an average growth rate of 11% was adopted in order to forecast the increase in the number of lines. The main objectives of the Five Year Plan are as follows:

1) Modernisation of the system

This will consist in automation of centres of particular touristic or agricultural importance and laying cables or building stations to improve the quality of inter-urban and international broadcasting.

2) Bid to reduce rural isolation

The majority of rural communities with access by roads or track suitable for vehicles will be provided with a telephone cabin and a post office. Those where the postal and telephone traffic justifies it will be provided with a receiver/issuing office.

3) Mechanisation of financial and postal services

The manual method can always be used whatever the difficulty involved in processing information. However, there are two disadvantages with the manual method:

- lower output due to an excessive division of the work;
- lack of skilled labour.

Mechanisation of the financial services would thus result inmore efficient operation and would encourage savings in the postal cheque and savings account sectors as a result of teleprocessing.

III - THE PROGRAMME

In order that these objectives take shape, more than 86 million dirhams will be allocated, broken down as follows:

- switchgear and broadcasting	63,646,000 DH
- data processing and postal mechanisation	7,882,000 DH
- land satellite telecommunications stations	9,900,000 DH
- buildings and vehicles	4,750,000 DH
TOTAL	86,178,000 DH

49 million dirhams will also be reserved for repaying supplier loans contracted under the Three Year Plan.

The whole postal and telecommunications programme will therefore amount to 135,178,000 DH.

1) New operations

1.1 - Switchgear

a) Automation of suburban and rural telephone systems

As all centres with more than 500 subscribers will have been made automatic by the end of the Three Year Plan, the Five Year Plan will therefore make automatic those centres with more than 300 subscribers. The following communities will be involved: Al Hoceima, Berkand and Nador and in the province of Tetouan: Fnideq, Restinga, M'Diq, Taifor, Martil.

6.1 million dirhams is allocated for this operation.

b) Extension and automation of the telex system

On the basis of an average growth rate of the telex services of 11% a year, only the Casablanca centre justifies extension of its existing capacity. 400 new installations are therefore planned which will require an investment of 1.8 million dirhams.

Furthermore the telex system will be completely automated after 1969. This operation will require an investment of 6.9 million DH.

c) Extending the four line Transit Centre (C.T.4) and the International Arrival and Departure Centre at Casablanca (C.I.D.A.)

These two extensions are essential, the first because of the growth in automatic inter-urban traffic and the second, connected technically with the previous one, aims at meeting the increase in automatic international traffic.

The overall amount of investment is 8 million dirhams.

d) Extension of the Agadir telephone exchange

This will involve the installation of 1,000 new subscriber units at the automatic telephone exchange at Agadir which is expanding rapidly as a result of the rebuilding of the town.

The investment expenditure is estimated at around 1 million dirhams.

e) Extension of the Casablanca El-Fida telephone exchange

The automatic system at Casablanca-El Fida which is now equipped with 2,500 lines, will reach saturation point at the end of 1969 if the annual increase of new subscribers stays at the present rate of 6%.

Installation of 500 new private subscriber units at the Casablanca El-Fida automatic telephone exchange as planned will cost 0.5 million dirhams.

f) Finally purchase of sundry telephone equipment will cost 3.1 million dirhams.

The table below summarises the investment on switchgear.

- extension of the telex system	1,800,000 DH
- telephone automation	6,100,000 DH
- telex system automation	6,900,000 DH
- extension of the C.T.4 and C.I.D.A.	8,000,000 DH
- extension of the Agadir telephone exchange	1,010,000 DH
- extension of the Casablanca-El Fida telephone exchange	500,000 DH
- various telephone equipment	3,108,000 DH
TOTAL	27,418,000 DH

1.2 - Transmissions

a) In order to improve telecommunication links between towns situation along the Mediterranean coast a radio link will be installed Tetouan - Al-Hoceima - Nador - Berkane and a co-axial cable laid Berkane - Oujda at a cost of 14.5 million dirhams.

b) Casablanca - Rabat Cable

The existing telephone cables linking Casablanca to Rabat have reached 95% saturation point in spite of an existing capacity of 1,100 circuits. The new cable, at a total cost of 7 million dirhams, will be able to cope with up to 2,700 circuits between the two towns.

c) Current load systems

This scheme aims at extending the telephone networks of certain rural communities by equipping the existing overhead cables by current load systems. The cost is 1 million dirhams.

d) Underground networks

Considerable efforts will be made to replan and expand the major existing networks, to repair cables corroded by electrolysis, to lay underground cables in sectors wholly equipped with overhead systems which are the cause of frequent failures and also to review, replan and extend the urban networks of the new automated centres.

Expenditure amounts to 8 million dirhams.

e) Linking up rural communities

The object of the State's efforts to improve living conditions in the country is to modernise certain centres and provide them a telephone network. 206 communities out of the 294 left will be equipped, accounting for an investment of 5.7 million dirhams.

The table below summarises the investment on switchgear:

Radio link Tetouan-Oujda	14,495,000 DH
Casablanca - Rabat Cable	7,000,000 DH
Current load systems	1,000,000 DH
Underground networks	8,000,000 DH
Rural communities: extension of overhead networks	5,733,000 DH
Total	36,228,000 DH

1.3 - Land satellite telecommunications station

Laying a sub-marine cable between Tetouan and Perpignan provided Morocco with good quality telecommunication links with France and Europe.

In order to be able to communicate simultaneously under similar conditions with countries in America, Africa and the Middle East the land satellite telecommunications station is now the most practical and cheapest method.

Morocco, a member country of the International Satellite Telecommunication Consortium (INTELSAT), with a land station can maintain telephone, telegraph and telex circuits direct with all countries who have a station working with the Atlantic Ocean satellites (America, Europe, Africa and the Middle East).

As a result of these circuits communications will be swifter, of better quality and cheaper than at present with the land and sub-marine networks.

With this station Morocco can also receive, without transit, international television programmes under the framework of Eurovision and Mondiovision. It can also transmit direct to all other countries who may wish to see any important events taking place in Morocco.

The investment expenditure can be broken down as follows:

Equipment	21,320,000 DH
Various work	2,180,000 DH
Infra-stucture	2,700,000 DH
Working capital	2,000,000 DH
Provision for contingency fund	3,200,000 DH
TOTAL	31,400,000 DH

A company responsible for operating this station will be set up: SOMETELSAT (Société Marocaine de Télécommunications par Satellites).

The Moroccan Government which has underwritten 50% of the capital will be responsible for part of the investment, amounting to nearly 10 million dirhams, which can be broken down as follows:

- Morocco's shareholding in the company	2,500,000 DH
- Radio and T,V. links	700,000 DH
- L.G.D. junction cable	1,700,000 DH
- Repayment of loan	5,000,000 DH
TOTAL	9,900,000 DH

1.4 - Postal mechanisation and data processing

The Postal Telephone and Telegraph Authority intends to replace the so-called manual system which consists in dividing work into several sections, done by several persons at several stages, by the automatic data processing system.

This project will deal with postal mechanisation and data processing.

a) Postal mechanisation

Postal mechanisation will consist of giving post offices in the major towns machinery for franking and recording registered mail, machines for issuing money orders and automatic stamp machines.

The main objectives are as follows:

- to avoid long waits by the public at counters;
- to improve productivity and the quality of the service provided.

b) Data Processing System

The data processing system will comprise two computers with magnetic discs and tape recorders and nearly 80 other units: perforators, sorters, checkers....

The fields concerned will be as follows:

- Telephone accounts with 87,000 subscribers, dealing with a turnover of some 73 million dirhams per annum;

- Stock control at the central and regional depots;

- Wireless licences with some 800,000 accounts;

- Postal cheque accounts (90,000) which can be expanded; To expand this system all post offices in the Kingdom should participate, by the teleprocessing method, in simple transactions, particularly in sight withdrawals.

- The Savings Bank with 230,000 accounts, involves the same difficulties as for Postal Cheque Accounts, particularly as it is planned to extend gradually to 250 post offices Savings Bank operations which at the moment are limited to 220 post offices.

Investment expenditure relating to mechanisation can be broken down as follows:

- postal mechanisation	300,000 DH
- data processing	7,582,000 DH
TOTAL	7,882,000 DH

1.5 - Postal buildings

Post offices will continue to be built in rural centres and in some outlying areas at the same rate as in previous years. 4 million dirhams will be spent under this heading.

1.6 - Vehicles

Extending the L.G.D. network (long distance lines), the telex system and the telephone network which should serve most rural communities will require more vehicles and equipment in order to ensure a swift repair service and installation of new subscribers units. 750,000 dirhams will be allocated for the purchase of various types of vehicles.

2 - Payments due under the Three Year Plan

Certain operations carried out under the Three Year Plan and commenced in 1967 were the subject of extensive suppliers' credits. 49 million dirhams will be allocated to pay the balance of the financial charges relating to these repayments.

The operations involved are the following:

- telephone and telegraph exchanges	10,000,000 DH
- Safi-Agadir and Safi Marrakesh cables	9,000,000 DH
- Mediterranean cable	30,000,000 DH
TOTAL	49,000,000 DH

SUMMARY TABLE

(in 1,000 DH)

Operation	1968	1969	1970	1971	1972	Total
- NEW OPERATIONS						
.1 - Switchgear						
Automation	500	1,000	2,000	2,000	600	6,100
Automation of the telex network	900	2,000	1,500	1,500	1,000	6,900
Extension of the telex network	-	-	600	600	600	1,800
Extension of the C.T.4 and C.I.D.A.	-	-	2,500	2,500	3,000	8,000
Extension of the Agadir telephone Exchange	-	800	210	-	-	1,010
Extension of the El-Fida telephone Exchange	-	-	500	-	-	500
Sundry telephone equipment	208	725	725	725	725	3,108
Total Switchgear	1,608	4,525	8,035	7,325	5,925	27,418
2 - Transmissions						
Radio and T.V. link Tetouan-Oujda	495	4,000	9,000	1,000	-	14,495
Casablanca-Rabat cable	-	4,000	3,000	-	-	7,000
Current load system	200	200	200	200	200	1,000
Underground network	-	2,000	2,000	2,000	2,000	8,000
Rural communities: extension of overhead networks	733	1,250	1,250	1,250	1,250	5,733
Total transmissions	1,428	11,450	15,450	4,450	3,450	36,228
3 - Land station						
Morocco's shareholding in the Company's share capital	2,500	-	-	-	-	2,500
Radio and T.V. links	-	700	-	-	-	700
.G.D. junction cables	-	700	1,000	-	-	1,700
Repayment of loan	-	-	-	2,500	2,500	5,000
Total Land station	2,500	1,400	1,000	2,500	2,500	9,900

1.4 - Data Processing and postal mechanisation						
Postal mechanisation						
- Various equipment	60	50	50	60	80	300
Data processing	822	1,450	1,450	1,940	1,920	7,582
Total 1.3	822	1,500	1,500	2,000	2,000	7,882
1.5 - Postal buildings	800	800	800	800	800	4,000
1.6 - Vehicles	150	150	150	150	150	750
Total	7,368	19,825	26,935	17,225	14,825	86,178
2 - PAYMENTS DUE UNDER THE THREE YEAR PLAN (linked aid)						
- Telephone exchanges	7,000	3,000	-	-	-	10,000
- Safi-Agadir and Safi-Marrakesh cables	6,000	3,000	-	-	-	9,000
- Mediterranean cable	5,378	10,000	14,622	-	-	30,000
Total 2	18,378	16,000	14,622	-	-	49,000
GRAND TOTAL	25,746	35,825	41,557	17,225	14,825	135,178

B - RADIO AND TELEVISION BRAODCASTING

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

The Three Year Plan 1965-1967 enabled the Moroccan Broadcasting and Television Service (R.T.M.) to develop its high frequency transmission network, both radio and television. Installation of the long wave transmission centre at Azilal thus covered almost the whole country with radio broadcasting programmes.

A radio link was also installed across the country from Rabat to Oujda and from Tangiers to Agadir for transmitting television programmes.

At 31st December 1967 the operations scheduled under the" Three Year Plan had in the main been carried out.

(in 1,000 DH)

HEADING	Available 1965-1967	Commitments 31.13.67		Allocations 31.12.67	
		Total	%	Total	%
Working on medium wave centres	2,270	2,270	100	1,265	55.7
Broadcasting house, Rabat	3,786	3,786	100	2,228	58.8
Broadcasting equipment	200	200	100	185	92.5
Regional studies	882	882	100	261	29.4
Transmission centre, Central Morocco	8,542	8,542	100	4,271	50.0
Television studios	2,361	2,361	100	1,515	64.1
High powered transmission centres	5,742	5,742	100	4,098	73.1
Radio & T.V. links	8,079	7,329	90.7	4,892	60.5
Low powered transmission centres	980	980	100	185	18.8
Marrakesh-Agadir Connexion	900	150	16.6	100	11.1
TOTAL	33,742	32,242	95,5	19,000	56.3

II - POLICY TRENDS OF THE FIVE YEAR PLAN

The two main objectives of the Five Year Plan are as follows:

- total broadcasting coverage of the country
- television coverage

1) Total broadcasting coverage of the country

This objective will be achieved mainly by extending the Azilal transmission centre and by strengthening the medium-wave network to provide good reception in the more important economic and social sectors such as Tangiers, Agadir, Rharb and Ksar-Es-Souk.

2) Television Coverage

The Five Year Plan's investment programme will incorporate television coverage of the Riff Mediterranean coast, Beni-Mellal, the plain of Tadla and certain regions bordering on the Sahara beyond the Atlas.

With these objectives in mind the five year programme will be as follows:

- Radio Broadcasting	14,980 thousand DH
- Television	18,895 "
Total	33,875 "

III - THE PROGRAMME

1) Radio Broadcasting

1.1 - Extension of the Tangiers Transmission Centre (Beni Mellal

The Centre at Tangiers, Beni Makkada, is at present equipped with a 50 kw medium-wave transmitter and broadcasts a programme specially prepared in Tangiers called "The Voice of Morocco". This transmitter will be replaced by new and more powerful equipment in order to maintain, improve and stabilise a well appreciated programme with a large audience.

The total corresponding expenditure amounts to 3 million dirhams.

1.2 - Regional Studio at Agadir

Building a regional studio at Agadir will enable all the social, economic and cultural programmes to be recorded and broadcast locally.

This work, costing some 750,000 dirhams, includes a studio with its control room, technical services and offices.

1.3 - Extension of the Axilal Transmission Centre

This long-wave transmission centre commenced under the Three Year Plan will be equipped with a 400 kw transmitter and will cover the whole of the national territory day and night.

The investment expenditure is broken down as follows:

- Infra-structure	3,587,000 DH
- Equipment	3,587,000 DH
- Initial costs	26,000 DH
TOTAL	7,200,000 DH

1.4 - Local transmission centres

a) KSAR-ES-SOUK

This operation comprises installation of a medium-wave radio transmission centre in a frontier area which only receives the national programmes in Arabic after nightfall. This 10 kw transmission centre will be adequate to give permanent coverage of a radius of 150 km from the centre of Ksar-Es-Souk.

The total amount of expenditure is 1 million DH.

b) OUARZAZATE

The same investment is planned for Ouarzazate where installation of a medium-wave transmission centre is justified for the same reasons as the previous operation.

c) GHARB

Installation of a medium-wave radio transmission centre at Sidi Yahia du Gharb will double present reception facilities in the area.

The cost of this 10 kw transmission centre is estimated at 1,060,000 DH.

1.5 - Broadcasting facilities

To improve broadcasting facilities an investment of 1 million DH is planned for the purchase of broadcasting coaches and recording cars for the Rabat centre and the regional stations.

To sum up, the investment for radio broadcasting can be broken down as follows:

Extending the transmission centre at Tangiers	3,000,000 DH
Broadcasting facilities	1,000,000 DH
Agadir regional studio	750,000 DH
Extending the transmission centre at Azilal	7,200,000 DH
Transmission centre at Ksar-Es-Souk	1,000,000 DH
Transmission centre at Ouarzazate	970,000 DH
Transmission centre at Gharb	1,060,000 DH
TOTAL Radio broadcasting	14,980,000 DH

2) Television

To extend television/coverage of the whole territory, high power transmitters and links will be installed in the following regions:

a) Mediterranean Coast and the Riff

First the northern area will be provided with radio and television links between Tangiers (Cap Spartel) and Djebel Zerhoun via Oujda (Boukouali) and secondly transmission centres will be installed at Djebel Bou Zetoune, Djebel Kechkeech and Nif Lihoudy.

The expenditure involved can be broken down as follows:

- radio and television link	4,300	thousand DH
- transmission centre	2,400	"
TOTAL	6,700	"

b) Beni-Mellal and the Plain of Tadla

To bring coverage to the province of Beni-Mellal, the agricultural importance of which is high, a radio/television link will have to be installed between El Kiar - Ait Amar - Tazerkount and the Centre at Tazerkount will have to be equipped.

3.5 million DH will be allocated for this purpose.

- radio and television links	2,500	thousand DH
- transmission centre	1,000	"
TOTAL	3,500	"

c) Upper Moulouya and Ksar-Es-Souk

To provide television coverage of this region three new centres will be installed and equipped with television transmitters which will be set up at Djebel Tichkout, Djebel Rhaddou and Djebel Mraou, The Tazekka Centre will be completed.

The investment expenditure can be broken down as follows:

- radio and television links	3,390	thousand DH
- transmitters	2,300	"
TOTAL	5,690	"

d) Installing television retransmitters

Because of the "shade" areas existing in certain regions, five small retransmitters will be installed at Essaoura, El Jadida, Chaouene, Azrou and Sidi Boubker to complete the coverage of the high power transmitters.

The total expenditure amounts to 405,000 DH.

e) Broadcasting facilities

For the same reasons as for radio broadcasting allocation will be made for the purchase of broadcasting coaches and cars at a cost of a total of 1 million DH.

f) Completion of the Three Year Plan

Finally 1.6 million DH will be allocated for completion credits for the following operations:

- Installation of radio and television links
- T.V. link Marrakesh - Agadir

The following table summarises the investment on televsion:

- Mediterranean Coast and Riff	6,700	thousand DH
- Beni-Mellal and Plain of Tadla	3,500	"
- Upper Moulouya and Ksar-Es-Souk	5,690	"
- Retransmitters	405	"
- Broadcasting Facilities	1,000	"
- Completion of the Three Year Plan	1,600	"
Total	18,895	"

3 - Television House

Although the Moroccan Broadcasting and Television Service has an extensive broadcasting network - which will be improved even further during the Five Year Plan - its production facilities are inadequate.

The studios at Rabat for example are inadequate for the ever increasing needs of programme planning. Furthermore the various services are expending at the same rate as the network is expanding and programmes increasing; these services therefore have less and less space available to meet their requirements.

Programme quality depends primarily on planning, production, programming and their realisation. Each of these factors is specialised and will only provide proper results if the necessary facilities are available: staff, premises and equipment.

For these various reasons and in order to redress the balance between broadcasting and production facilities, a Television House becomes a necessity.

This operation will be the subject of specific financing.

The R.T.M. will thus have completed its infra-structure for many years to come as, at the end of the Plan, it will be provided with a Radio and Television House.

SUMMARY

(in 1,000 DH)

Operation	1968	1969	1970	1971	1972	Total
BROADCASTING						
1.1 Extension of the transmission centre at Tangiers	-	500	1,000	1,500	-	3,000
1.2 Regional Studio at Agadir	-	300	450	-	-	750
1.3 Transmission centre at Azilal	250	500	1,250	2,000	3,200	7,200
1.4 Local transmission centres						
Ksar-Es-Souk	-	-	200	300	500	1,000
Ouarzazate	-	-	-	200	770	970
Le Rharb	-	-	200	300	560	1,060
1.5 Broadcasting facilities	-	-	250	250	500	1,000
Total Radio Broadcasting	250	1,300	3,350	4,550	5,530	14,980
TELEVISION						
1.1 Mediterranean Coast and the Riff						
- Radio and television link	700	1,000	1,700	900	-	4,300
- High-power transmitters	-	500	1,000	900	-	2,400
1.2 Beni-Mellal and Plain of Tadla						
- Radio and television link	1,000	1,000	500	-	-	2,500
- High-power transmitters	-	500	500	-	-	1,000
1.3 Upper Moulouya and Ksar-Es-Souk						
- Radio and television links	-	500	500	785	1,605	3,390
- High-power transmitters	-	-	-	500	1,800	2,300
1.4 Retransmitters	-	-	-	-	405	405
1.5 Broadcasting facilities	-	500	250	250	-	1,000
1.6 Completion of the Three Year Plan						
- T.V. link Marrakesh - Agadir	800	-	-	-	-	800
- Radio and television links	-	700	100	-	-	800
Total Television	2,500	4,700	4,550	3,335	3,810	18,895
GRAND TOTAL	2,750	6,000	7,900	7,885	9,340	33,875

C) MOROCCAN CINEMA CENTRE

For the first time the Plan has had its attention drawn to the development problems of the cinema industry. This awareness by the Government was already manifested by a recent decision to extend to this sector the benefits of the provisions of the Investment Code. In addition to this encouragement given to privat investors the Moroccan Cinema Centre, a public undertaking, will receive an equipment subsidy.

For the next five years the programme for the Moroccan Cinema Centre will comprise two operations at an overall cost of 950,000 dirhams, a start being made in 1968.

i) installation of an auditorium

and a laboratory for developing films requires the construction of administrative and technical buildings at a cost of 800,000 dirhams.

The Moroccan Cinema Centre will amortise this investment rapidly as the sums which it spends annually for various assembl and sound work exceed 800,000 DH.

ii) the completion work on the cinema hall situated in the Ministry of Information will cost 150,000 DH.

This cinema will seat 300 and will be intended for showing films submitted to the Film Censorship Committee and the Special Committee on admission price increases; the hall can also serve as an Artistic or Testing Hall.

KINGDOM OF MOROCCO

PRIME MINISTER

MINISTRY OF ECONOMIC AFFAIRS, PLANNING AND
THE TRAINING OF SENIOR GRADES

PLANNING AND STATISTICAL DIVISION

FIVE YEAR PLAN 1968-1972

VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 15

URBAN AND RURAL EQUIPMENT

MARCH 1968

URBAN AND RURAL EQUIPMENT

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A - HOUSING AND URBAN DEVELOPMENT

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

1 - Urban housing

The main objective outlined by the Three Year Plan in respect of urban housing was to control extension of the shanty-towns and overpopulation of the medinas. The extent of the effort needed in other priority sectors, however, did not permit allocation of extensive credits to this sector and the Three Year Plan could only complete the current housing programmes (540 units) develop land for redistribution (8,800 developed plots) and provide dwellings with improved sanitation (4,500 dwellings). The planned expenditure amounted to a total of 50 million DH.

Finally, in order to assist heads of family to build a house on the plot of land bought by them, it was thought desirable for the State, through the intermediary of the Peoples' Banks, to grant loans, the total of which was to have amounted to 88 million DH.

Almost all the credits allocated by the Three Year Plan were utilised: the final housing programme was surpassed by a wide margin (2.4 times the estimates). The programme for dwellings with improved sanitation was 68% achieved and redistribution 80%. A total of 9,216 dwellings was therefore built in the urban sector by means of a contribution of approximately 68 million DH from the "Cheap Dwellings" Fund (H.B.M.).

2 - Rural housing

In the rural sector 1,500,000 working days were devoted under National Development to housing schemes.

The results were assessed separately by the Community Development (6,024 dwellings) and the National Development (4,386 dwellings). However the housing incorporated under the latter programme's budget was mainly built within the framework of the former. The total number of dwellings built under the Three Year Plan can be estimated at some 7,000, enabling around 35,000 persons to be housed.

II - POLICY TRENDS OF THE PLAN AND PROGRAMME OF ACTION

Morocco has a mainly rural population, some 10 million people in 1968 living permanently in the country, the town dwellers, or 4.4 million inhabitants, only representing 30% of the total population. This percentage however is tending to increase. However although the phenomenon of urban development is a necessary complement to industrialisation and the economic growth of the country, this growth should not be anticipated and thereby compromised. If the situation of migrants gets worse, shanty towns would become more widespread. The population should therefore be stabilised in its place of work, in the country and the drift from the land should be discouraged.

This objective will be to a large extent achieved as a result of the many schemes in favour of agriculture under the Plan throughout the Kingdom. These efforts, combined with a policy of improving housing conditions, will encourage the rural populations to stay at their places of production.

1 - Programme of action for rural housing

Action on a wide scale concerning rural housing will be undertaken during the Plan, independant of those carried out in the past and will involve some 90,000 wellings.

First 60,000 traditional type dwellings will be built using the local labour available. The peasant will build his own house. The State will provide him with the tools and materials and any necessary technical aid.

Secondly, 30,000 operations for renovating the ksours in the Extreme South will be carried out; this action is moreover essential if the very important tourist value of this area is not to be lost. In order to carry out these programmes, the local populations will provide the necessary labour. Both for building dwellings and for renovating the ksours, the populations will be encouraged by the distribution of foodstuffs, coming possibly from some international organisation such as the World Food Programme.

The counterpart of this aid under the general budget and the local community budgets will amount for all the 90,000 schemes to 100 million DH.

2 - Programme of action for urban housing

Although priority is given to rural housing, efforts will be made in the urban sector to stop the increase of the shanty-towns:

- 20,000 plots of redistributed land will be developed for heads of families who wish to build their own houses. They will be given substantial State aid in the form of H.B.M. credits (Cheap Dwellings). These credits should also be granted to other low-income households wishing to build a house on land belonging to them.

- Model houses will be built for the populations to encourage them to build their own houses at low cost and observing the technical standards.

3 - Programme of action for urban development

In conjunction with this housing effort the State will adopt a number of measures to ensure the harmonious growth of towns: their appearance in 10 or 20 years time will, in fact, depend on the legislation of today.

Long-term urban development will be guided by general development plans, the approval procedure for which will be accelerated. These plans will envisage the setting up of various zones.

1 - priority development areas (Z.E.P)
2 - priority urban development areas (Z.U.P.)
3 - deferred development areas (Z.E.T.)

These measures will be completed under the Plan by regulati
aimed at controlling land speculation.

4 - Various development

First this involves the electrification of rural centres. 2.5 million DH will be allocated for this each year during the Plan. Areas to be electrified will be selected according to an overall plan to be drawn up in collaboration with the Ministe departments concerned and after consultation with the populatio i question.

We would point out as a reminder that the agricultural programme also includes electrification schemes.

At Tangiers the industrial zone will be developed. 5 mill DH will be allocated for this purpose.

HOUSING AND URBAN DEVELOPMENT

SUMMARY TABLE OF INVESTMENT

(in 1,000 DH)

Description of operation	1968	1969	1970	1971	1972	Total
A.- EXPENDITURE CHARGEABLE TO THE STATE BUDGET						
Rural housing	1,725	5,300	8,685	9,255	5,035	30,000
Traditional housing: 60,000 houses Renovation: 30,000 schemes						
Urban housing						
Completion credits	9,000	-	-	-	-	9,000
20,000 plots; studies and experiments; (including National Development expenditure)	2,750	5,800	8,550	13,560	11,400	42,060
Development Plans	1,000	1,500	1,500	1,500	1,000	6,500
Tangiers industrial zone (completion)	5,000	-	-	-	-	5,000
Electrification of rural areas	2,500	2,500	2,500	2,500	2,500	12,500
TOTAL A	21,975	15,100	21,235	26,815	19,935	105,060
B - EXPENDITURE FINANCED BY THE TAX ON GOODS AND SERVICES						
Participation in the rural housing programme	4,025	12,390	20,265	21,595	11,725	70,000
total B	4,025	12,390	20,265	21,595	11,725	70,000
GRAND TOTAL	26,000	27,490	41,500	48,410	31,660	175,060

B - SEISMIC PREVENTION

Seismic prevention is a passive defence against the danger from earthquakes; no-one has forgotten since the catastrophe of 29th February 1960 the extent to which Morocco is vulnerable. The prevention measures which have been proved to be effective should be adopted in our country.

Their application requires beforehand a deeper knowledge of the phenomena in order that the territory can be demarcated into more or less dangerous zones. For this purpose a credit of 450,000 DH was incorporated under the Ministry of Public Education's budget and will be broken down as follows:

- Seismic surveillance network	
4 further stations to be equipped	220,000 DH
Warning Centre at Rabat	20,000 DH
- Swell surveillance network	
3 stations to be automated	65,000 DH
Warning Centre at Casablanca	10,000 DH
- 2 mobile seismic stations	135,000 DH
TOTAL	450,000 DH

The main task to be accomplished during the Plan however should be the drawing up of regulations for earthquake proof buildings which should have the force of law for all dwellings and new buildings: the strictness of these regulations would obviously vary according to the extent of danger in the various areas. The slight resulting increase in unit prices would be a very cheap form of insurance in relation to the value of goods and lives which would be saved.

C - PIPING OF WATER SUPPLIES

I - PRESENT SITUATION AND EVALUATION OF THE THREE YEAR PLAN

Many organisations (both public and private) are responsible for water supplies.

- the R.E.I. "Regie des exploitations industrielles", (Industrial undertakings authority);
- The local communities;
- The Services of the Ministry of Agriculture (in the smaller rural centres);
- The S.M.D. (Société Marocaine de Distribution) concerning piping water from the Oum-Er-Rbia to supply Casablanca and El Jadida;
- The independent authorities (R.A.D. at Casablanca, R.E.D Rabat etc...) controlling the distribution networks in certain municipalities.

An inter-ministerial body (the Co-ordinating Committee for Problems concerning Water Supplies, or the C.O.P.E.A.) was set up in order to resolve the problems of co-ordination caused by the many organisations involved. According to the terms of the Order instituting the C.O.P.E.A. these organisations must inform this Committee of their programmes and achievements concerning water supplies.

I - Achievements of the Three Year Plan

Among the main operations carried out under the last Plan mention should be made of the R.E.I. programme which controls 53% of the installations:

1 - Modernisation of many pumping stations and greater output from networks serving small centres.

2 - Installation of new piping systems in tourist centres between Sebta and Martil.

3 - Improvement and modernisation of the equipment at Fouarat.

Work on the following could not be started and will be included within the framework of the Five Year Plan.

- the new piping system for the Oued Zem
- the new piping system for the Khouribga civil centre.

The Ministry of Public Works funds allocated to the R.E.I. amounting to 7.2 million dirhams during the Three Year Plan, were 94% committed at 31st December 1967.

2 - Situation on the Eve of the Five Year Plan

On the eve of the Five Year Plan the drinking water supply situation in towns is one of the Government's main concerns. This situation is as follows:

1 - Consumption per inhabitant is low in certain areas and this is due to:

a) the limited supplies through lack of resources and sometimes through inadequate installations;

b) the low supply rate, in other words an under developed distribution network, particularly in the rural areas.

2 - Facilities varying widely from one province to another.

The most significant figures are those concerning the small towns (coastal and internal regions), the "satisfaction rate" being assessed at 65%.

In the hinterland (beyond the mountains) this rate is around 53%.

However, the existence of many water piping systems carrying water to several towns and areas along their length improves these satisfaction rates considerably.

3 - There is a greater tendency for present installations to become saturated as a result of:

a) the considerable increase in the population;
b) consumers' increased standard of living.

This tendency is particularly noticeable in areas which are being industrially developed or in semi-rural regions. The consumption rate of 100 litres/day/hour in the small towns is therefore exceeded in the larger conurbations.

Investment allocated needs therefore to be considerable and urgent. The cost will increase more and more as needs grow; access to the water used and its processing is becoming increasingly difficult:

- surface water should replace underground water;

- certain areas should be supplied from sources further away.

II - PROGRAMME OF ACTION

Action by the Public Authorities will be divided into two phases, first a series of studies to achieve better co-ordination and long-term planning of schemes and secondly an attempt, through adequate investment, to meet present requirements and project future needs.

1 - Studies

The problems are so complex and so important that it appeared preferable to make a general and exhaustive study rather than to seek improvised solutions meeting individual cases, the results of which could be quite detrimental in the long-term.

Assistance was requested from the "Special United Nations Fund" for this work and a request made in this respect will be examined during 1968. The objectives of this project are threefold:

- To make a national survey of the water supplies available and to prepare a general programme for the measures to be adopted and investments made.

- To prepare a general plan and a pre-investment study fr supplying drinking water to the coastal regions and a study of the problem of waste water and household waste in the towns in this area.

- To study the setting up of a regional organisation for water administration and the training of senior staff.

The Government's contribution to this project will amount to approximately 0.8 million dirhams.

2 - The investment

In view of the numerous water supply authorities involved it proved impossible to know precise details of all the investment programmes (although existing for 5 years).

An overall estimate, however, can be made. Availabilities in 1968 were 6.6 m3/s whereas needs amounted to 8.60 m3/s. In 1972 needs will amount to 12 m3/s. The 5.4 m3/s extra needed will require an investment amounting to some 320 million DH (the cubic metre/day being assessed at 690 DH).

We shall only examine here the R.E.I. programme which includes the main projects and to which the general State budget will make the major contribution. This programme will be financed by four means:

		(in 1,000 DH)
(i)	Ministry of Public Works Funds	47,850
(ii)	Local community funds for installation of reservoirs	p.m.
(iii)	Water rates levied for branches and extensions	14,970
(iv)	R.E.I.'s own funds allocated for renovations	25,000
		87,820

If the 17,313 million completion credits from the Three Year Plan are added, the total amount of investment is 105,133,000 DH.

The Ministry of Public Works fund is broken down as follows:

Studies

3,446,000 DH was allocated, including 1,700,000 DH alone for harnessing the Oued Grou waters.

This is in fact the long-term solution to the problem of supplying drinking water to towns on the Atlantic coast.

Research

A better knowledge of potentialities and latent availabilities will often allow needs to be met at less cost: 0.78 million dirhams.

- Supply pipes

a) Subterranean water

The most important projects concern Agadir (6 million DH), Ouezzane (7.9 million DH), Oued Zem (4.5 million DH) and Saidia (2 million DH). These regions have for several years been having increasing difficulty in obtaining their drinking water supplies 6,824,000 DH are planned for lower-scale operations concerning the smaller conurbations.

b) Surface water

First, but only as a reminder, we would mention the project for utilising the waters of the Oued Grou, already mentioned above. The corresponding credits were incorporated under the "Dams" section (45 million DH).

Next comes the work to be carried out on the Oued Beth for supplying Khemisset (5.1 million DH), on the Oued Ziz for supplying Ksar-Es-Souk (3 million DH) and at Safi and Berkane, (3 million and 2.5 million DH respectively); and finally working the phosphate deposits at Ben Guerir presupposes the necessary laying of water supplies (cost 2 million DH).

To these sums should be added the credits needed for completion operations under the Three Year Plan (or 17.3 million DH).

WATER SUPPLY PIPES

SUMMARY TABLE OF INVESTMENT

(in 1,000 DH)

Description of operation	1968	1969	1970	1971	1972	Total
General studies - water problems	-	200	300	300	-	800
I - MINISTRY OF PUBLIC WORKS FUNDS						
1.1 Studies	2,636	217	533	60	-	3,446
1.2 Research	500	70	210	-	-	780
1.3 Water supply pipes						
a) Underground water						
AGADIR	5,000	1,000	-	-	-	6,000
OUEZZANE	3,900	4,000	-	-	-	7,900
OUED SEM	1,000	3,500	-	-	-	4,500
SAIDIA	1,000	1,000	-	-	-	2,000
OTHER CENTRES	2,860	3,440	164	230	130	6,824
Total a)	13,760	12,940	164	230	130	27,224
b) Surface water						
Grou	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
KHEMMISSET	-	1,000	2,000	2,100	-	5,100
KSAR-ES-SOUK	-	-	1,500	750	750	3,000
BERKANE	1,500	1,000	-	-	-	2,500
SAFI	1,500	1,500	-	-	-	3,000
BEN GUERIR	-	-	-	-	2,000	2,000
Total b)	3,000	3,500	3,500	2,850	2,750	15,600
Completion credits of the Three Year Plan	5,553	10,260	1,500	-	-	17,313
Total 1	25,449	26,987	5,907	3,140	2,880	64,363
Total State: 0 + 1	25,449	27,187	6,207	3,440	2,880	65,163
Construction of reservoirs (from communities' own resources)	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
Branches and extensions (from R.I.E's own resources)	2,538	2,769	2,940	3,229	3,494	14,970
Renewal work (from R.E.I's own resources)	5,000	5,000	5,000	5,000	5,000	25,000
GRAND TOTAL	32,987	34,956	14,147	11,669	11,374	105,133

D - REBUILDING OF AGADIR

The earthquake at Agadir took a heavy toll of the nation's resources and the State budget devoted several hundreds of millions of DH to the rebuilding of Agadir. In fact the infra-structure essential for the functioning of an entirely new town had to be built. Today, thanks to Government assistance, the disaster region is now able to resume its development.

I - EVALUATION OF THE THREE YEAR PLAN AND SITUATION ON THE EVE OF THE FIVE YEAR PLAN

Rebuilding the town of Agadir should to a large extent be financed by the State and the Three Year Plan allocated credits for this purpose of 40 million DH in order to provide the necessary infra-structure, road networks, parks and landscaping etc. Sums were also devoted to construction of administrative buildings and official accommodation for government and municipal officials.

On the eve of the Five Year Plan the last primary infra-structure work is being completed and the secondary infra-structure work is continuing in proportion: thus, 5.1 million DH are scheduled under the 1968-72 programme.

III - POLICY TRENDS AND THE PROGRAMME ADOPTED

Confirmed in its rebuilding mission, the High Commissariat will dispose of a further 4 million DH during the Five Year Plan and this sum will be used to finance the following operations:

- initiating general studies, surveys and tests in order to ensure the technical control of seismic safeguards, both at project and building stage, 105 million DH will be allocated to soil tests, to controlling road works and building quality;

- continuing work on clearing and demolishing temporary structures: 150,000 DH will be spent on this;

- certain roadworks and levelling operations will cost 0.8 million DH (specifically extending roads in the southern industr quarter, work on reconstruction areas and rehousing the shanty-towns);

- sanitation work concerning mainly the station for processing waste water, the tourist and resort sector and rehousing the shanty-towns (1.4 million DH);

- a major planting programme will be carried out to improve the coastal area which will probably be an important tourist development area (0.6 million DH);

- finally 500,000 DH will be spent in 1968 on replanning the sewerage system and credits are scheduled for a factory to process household waste and for the re-siting of three by-produc factories (900,000 and 500,000 DH).

The table below summarises by year the expenditure allocated under the main headings for the years 1968 to 1972.

CREDITS UNDER THE FIVE YEAR PLAN 1968-1972 FOR THE HIGH COMMISSARIAT FOR THE RECONSTRUCTION OF AGADIR

(in 1,000 DH)

Type of Expenditure	1968	1969	1970	1971	1972	Total
- General studies	300	300	300	100	50	1,050
- Surveys, tests	50	50	50	-	-	150
- Demolition, clearance	200	200	200	200	-	800
- Roadworks, levelling	200	300	300	300	300	1,400
- Sanitary improvements	100	200	100	100		500
- Parks and landscaping	500	-	-	-	-	500
- Replanning for processing household waste	450	450	-	-	-	[illegible]
- Re-siting three factories processing by-products	-	-	500	-	-	500
- Completion credits of the Three Year Plan	4,150	950	-	-	-	5,100
TOTAL	5,950	2,450	1,450	700	350	10,900

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VOLUME II

DEVELOPMENT BY SECTOR

CHAPTER 16

ADMINISTRATIVE FACILITIES

MARCH 1968

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ADMINISTRATIVE FACILITIES

Diversification and extension of the Government's activities presupposes an improvement in the administrative structure. Added to this are the needs resulting from maintaining the existing structure in good condition. It was therefore essential to make special efforts in this field during the next five years particularly as, in view of financial constraints, the Three Year Plan had only adopted a minimum programme.

I - EVALUATION OF THE THREE YEAR PLAN

In spite of the considerable needs the Three Year Plan was only concerned with limited objectives for which a total credit of 124 million DH was allocated. While the credits allocated under the appropriation bill for the years 1965-66-67 amounted to 131 million DH, in fact 189 million DH was available to the various administrations because of the credits amounting to 58 million DH deriving from the Five Year Plan 1960-64.

This 189 million DH was almost entirely committed, 158 million DH being allocated during the three years of the Plan, almost half of which was in 1967. This situation can be explained both by the difficulty in assessing the cost of operations and by the delay in the building work planned. Many projects, usually fully committeed, will only be completed during the following years and the corresponding credits were therefore carri over; this increases the overall amount allocated to administrativ facilities for the Five Year Plan 1968-72 to nearly 12 million DH.

The table below summarises by Ministry the overall credits allocated and issued during the Three Year Plan.

SUMMARY BY MINISTRY OF THE CREDITS

ALLOCATED AND ISSUED DURING THE THREE YEAR PLAN

(in 1,000 DH)

Type of expenditure	Credits allocated	Credits issued	%
I - CIVIL DEFENCE			
- Royal Court and Ancillary Services	43,373	42,876	98.
- Ministry of Justice	9,430	6,393	67.7
- Foreign Affairs	12,417	12,152	97.8
- Home Office (including F.A. and Police Force)	29,311	22,766	77.6
- Exchequer	13,737	5,368	39.
- Labour and Social Affairs	119	93	78.
- Habous	7,961	5,092	63.
- Ministry of P.T.T.	6,606	4,708	71.
TOTAL - I	122,954	99,448	[illegible]
II - MILITARY DEFENCE			
TOTAL - II	65,874	52,977	[illegible]
GRAND TOTAL	188,828	158,425	83.

II - POLICY TRENDS OF THE FIVE YEAR PLAN

In spite of the achievements of the Three Year Plan, the administrations still have extensive requirements. However, even given the constant need to meet these requirements, the necessity of devoting the main financing possibilities to the most directly productive investments and priority sectors meant that unfortunately the programmes put forward could not be completed in their entirety.

Therefore the Five Year Plan 1968-1972 proposes to carry ou

- First, completion of operations launched during the Three Year Plan, maintenance of the existing structure and improvement of its management.

- Secondly, projects caused by more extensive Government action, its decentralisation and deconcentration.

Thus, more so than the programme adopted under the Three Year Plan, the Five Year Plan in respect of Administrative Facilities constitutes a real effort to adapt the country's administrative infra-structure to its economic and social development.

III - THE FIVE YEAR PROGRAMME

Before describing the planned achievements of the various administrations, the programme will be shown by Ministry.

(in 1,000 DH)

CIVIL DEFENCE	
- Royal Court and Ancillary Services	45,000
- Justice	9,412
- Foreign Affairs	3,778
- Interior	100,100
Ministry departments	52,300
Auxiliary forces	20,575
National Police Force	27,225
- Labour and Social Matters	1,230
- Public Health	700
- Youth and Sport	550
- Public Education	1,000
- Habous and Islamic Affairs	6,309
- Government General Secretariat	150
- Exchequer	4,957
- Secretariat of State for Planning and Training Senior Grades	16,000
Services	1,000
Studies	15,000
- Public Works	591
- Commerce, Industry, Mining, Craft-Industries, Merchant Navy and Fishing	164
MILITARY EXPENDITURE	
- F.A.R. and Royal Gendarmarie	5,760
TOTAL	195,701

- This table only includes operations concerning Facilities directly linked to administrative activities. Buildings concerning technical departments are included under other sections.

- This table takes into account, however, the completion operations of the Three Year Plan.

1 - Royal Court and Ancillary Services

A sum of 45 million DH was allocated for the Royal Court and Ancillary Services.

2 - Ministry of Justice

This department's programme concerns first the various Judiciary Services and secondly the Prison Administration. An amount of 9.4 million DH was allocated for schemes to improve the working conditions of the Judiciary Services or Prisons department (decongestion) and the sanitary conditions of the detention centres.

Details of the programme adopted are shown below:

	(in 1,000 DH)
JUDICIARY SERVICES	
- Supreme Court (RABAT)	3,000
- Regional Court (RABAT)	2,000
- Sadad Court (TANGIERS)	500
PRISONS ADMINISTRATION	
- Tangiers Prison	700
- Ouarzazate Prison	200
- Rabat Prison	1,000
- Outita Penitentiary	200
- Extension of the Ali Moumen penitentiary	190
- Extension of the Taza Prison	100
- Various accommodation	80
- Equipment for prisoners' work	200
- Printing works of the Kenitra Central Office	200
- Sanitary equipment	42
- Completion credits of the Three Year Plan	1,000
TOTAL	9,412

3 - Ministry of Foreign Affairs

The administrative facilities of this department during the next five years will be confined to operations already launched under the Three Year Plan (London Residence, for example) and for which additional credits are not needed.

In order to finance certain Ministry of Foreign Affairs facilities, however, the assistance of semi-official organisations such as the Savings and Trustee Bank will be sought. It appeared in fact necessary to reduce the rents paid abroad for buildings for our diplomatic services (3 million DH in 1967) which should subsequently result in considerable foreign exchange savings.

	(in 1,000 DH,
LONDON residence	778
Residence of the Permanent Mission in New YORK	1,000
MADRID Chancellary	1,000
Completion credits of the Three Year Plan	1,000
TOTAL	3,778

4 - Ministry of the Interior

The Ministry of the Interior's programme concerns the following services: the Ministry properly so-called, the Auxiliary Forces and the National Police Force. The total credits allocated amount to 100 million DH.

a) Ministry Departments

The credits allocated represent approximately half the total granted to the Ministry of the Interior, or 52.3 million DH. The financial effort is therefore considerable and is explained by the desire to meet the needs resulting from setting up new provinces and development of administrative activities.

These operations are described below:

	(in 1,000 DH)
ADMINISTRATIVE SERVICES	
- Setting up 32 command posts	3,200
- Completion of existing posts	3,000
- Replacement of 3 General Secretariats: FEZ, TAZA, BENI-MELLAL	5,220
- Building two General Secretariats: EL JADIDA, KHOURIBGA	3,480
- Central Services Office	1,000
- Registry Offices	2,000
ACCOMMODATION	
- Accommodation for new posts	4,800
- Completions	5,500
- Governors' residences:	
EL JADIDA, KHOURIBGA, RABAT	400
MARRAKESH AL HOCEIMA	600
- Purchasing a guest villa (Rabat)	500
- Construction of 5 official residences	15,000
RADIO EQUIPMENT	5,500
SECURITY FORCES	1,500
COMMUNITY DEVELOPMENT	600
TOTAL	52,300

b) Auxiliary forces

The credits allocated under this heading amount to 20.5 million DH, use of which will enable current work to be completed and also the accommodation facilities of the Moghazenia to be improved, their medical treatment being provided by a modern medico-social centre.

The distribution of the credits allocated is shown below, by operation:

	(in 1,000 DH)
- Accommodation for Moghazenis	10,600
- Senior grade accommodation	3,250
- Administrative blocks	830
- Electricity and water supplies	2,050
- Sewerage system	630
- Enclosure walls	125
- Enclosure walls for the Bouknadel Auxiliary Forces	95
- Stables	50
- Buildings	500
- Purchase of Land	950
- Sheds and warehouses	95
- Medico-Social Centre	1,400
TOTAL	20,575

c) National police force

27 million DH was allocated under the Five Year Plan for the National Police Force. These credits are intended primarily for building of police stations and the necessary accommodation.

The Royal Police Academy which is not incorporated in the programme of the various operations shown below comes under the section "Training of Senior Grades and accounts for 4,950,000 DH.

	(in 1,000 DH)
ADMINISTRATIVE SERVICES	
- Police stations	
Regional Police Force	1,940
Districts	4,900
Communities	3,300
- Mobile intervention forces (TETOUAN - FEZ)	1,230
- Security Services centre (RABAT	1,000
- 2nd section of police station at TANGIERS	755
ACCOMMODATION	
- Accommodation for the Director of the National Police Force (RABAT) and the Head of the Regional Police Force (RABAT)	480
- Central Bureau accommodation (RABAT)	103
- City police (RABAT)	830
- Accommodation for the Head of the NADOR district	3,437
- Accommodation at SETTAT	35
- Annuities for the Franco-Marocaine Company	206
	4,313

SPECIAL EQUIPMENT

- Radio link equipment	2,300
- Laboratory equipment	73
- Coastal protection vessel	303
TOTAL	27,225

5 - Ministry of Labour and Social Affairs

The Ministry of Labour will extend the Labour and Social Services departments under the Five Year Plan. 510,000 DH will also be spent for Work Scholarships.

	(in 1,000 DH)
- Labour department	560
- Social services	160
- Work Scholarships	510
TOTAL	1,230

Furthermore a credit of 7.68 million DH will be allocated for building and equipping Training and Professional Qualification Centres as detailed under the section "Training of Senior Grades".

6 - Ministry of Public Health

The credits allocated (700,000 DH) are for extension of the Ministry of Public Health; this had been made necessary by the improved health programme and the institution of the national family planning programme.

7 - Secretariat of State for Youth and Sport

During the years 1968 to 1972 550,000 DH will be devoted to building and equipping the Regional Inspectorates at Tangiers and Al Hoceima.

	(in 1,000 DH)
- Regional Inspectorate, Tangiers	300
- Regional Inspectorate, Al Hoceima	250
TOTAL	550

8 - Ministry of Public Education

State efforts in respect of public education presupposes improvement of the management organisations. The Five Year Plan 1968-1972 thus adopted operations intended to improve the facilities of both the Central Services and the Regional Authorities.

	(in 1,000 DH)
- Central Services buildings	600
- Regional Authorities	400
TOTAL	1,000

9 - Ministry of Habous and Islamic Affairs

2 million DH was reserved for building the Ministry of Habous and Islamic Affairs.

A further 2 million DH will be allocated for the construction of buildings of worship, the completion credits of the Three Year Plan amounting to 2,309,000 DH.

- Construction of a Ministry	2,000
- Buildings of worship	2,000
- Completion credits of the Three Year Plan	2,309
TOTAL	6,309

10 - Government Secretariat General

A credit of 150,000 DH was allocated for the administrative facilities of this department to improve the present conditions.

11 - Exchequer

Details of the operations, accounting for 5 million DH, allocated to this department for its administrative facilities are shown below.

	(in 1,000 DH)
TAXATION DIVISION	
- Taxation buildings	
- AL HOCEIMA	180
- KHOURIBGA	200
- Rural Taxation Control (KSAR-ES-SOUK)	120
CUSTOMS ADMINISTRATION	
- Completion of the Regional Sub-Directorate, Casablanca	350
- Accommodation for Brigade Agents, TANGIERS	480
- Customs Posts at Bouarfa (Province of OUJDA)	350
- Algerian Frontier Posts	160
EXCHEQUER RECEIPTS AND COLLECTIONS	750
- (KHOURIBGA - EL JADIDA - BENI MELLAL)	
Completion credits of the Three Year Plan	2,367
TOTAL	4,957

12 - Secretariat of State for Planning and the Training of Senior Grades

The five year programme for this department, in view of the extensions of the activities of the Central Statistical Department on both central and local levels provides credits of 600,000 DH which will be used to build and equip offices. A sum of 15 million DH will also be allocated for the Statisitcal Programme (cf. Volume I, Section III, Chapter IV, Implementation of the Plan).

After an agreement reached with the special United Nations Fund it was also decided to combine all the documentation facilities in a National Documentation Centre provided with the most up-to-date equipment.

DEPARTMENTS OF THE SECRETARIAT OF STATE FOR PLANNING	1,000
- Central Statistical Service Office	600
- National Documentation Centre	400
- STUDIES	15,000
TOTAL	16,000

13 - Ministry of Public Works

The administrative buildings to be constructed which are shown below in detail were not taken into account in the other sections of the Plan.

(in 1,000 DH)

BUILDINGS FOR OFFICE USE	
- Ordinary services, transfer from the community services (OUJDA)	200
- Completion of the Tangiers district offices	391
TOTAL	591

14 - Ministry of Trade, of Industry, of Mining, of Craft-Industries, of the Merchant Marine and Fishing Fleet

The credits allocated to this Ministry concern completion operations commenced during the Three Year Plan.

INDUSTRY, MINING AND COMMERCE	
- Completion credits	120
DIRECTORATE OF MERCHANT NAVY AND FISHING	44
- Closing the maritime area at NADOR	16
- Maritime area at TANGIERS	28
TOTAL	164

15 - National Defence

Apart from 1,060,000 DH committed for 1968 for the purchase of land for the Royal Gendarmerie, 1,400,000 DH are allocated to the Royal Navy and 3,300,000 to special training; these credits are completion operations under the Three Year Plan.

IV - THE MEASURES

In 1960 a list of administrative buildings was drawn up by the Higher Planning Council for rational re-distribution of the premises in accordance with the objectives of the Five Year Plan 1960-1964. Inquiries were subsequently carried out among the various Ministries but the results could not be used. The situation of the Administration's buildings is still little known.

Estimates of needs for the Five Year Plan period 1968-1972 are therefore particularly difficult.

Accordingly:

- a census of the administrative facilities, and

- a list of buildings should be prepared and regularly kept up-to-date.

Finally, during the years 1968-1972 a redistribution of the administrative facilities would appear to be desirable, in accordance with the various departmental needs both on local and national level.

SUMMARY TABLE OF ADMINISTRATIVE FACILITIES

(in 1,000 DH)

MINISTRY	1968	1969	1970	1971	1972	Total credits
- Royal Court and ancillary services	25,000	20,000	-	-	-	45,000
- Justice	2,070	3,214	1,904	1,062	1,162	9,412
- Foreign affairs	1,778	2,000	-	-	-	3,778
- Home Office	15,235	27,740	22,839	18,079	16,207	100,100
- Ministry departments	7,450	12,200	11,210	10,810	10,630	52,300
- Auxiliary Forces	3,000	5,219	4,859	4,066	3,431	20,575
- National Police Force	4,785	10,321	6,770	3,203	2,146	27,225
- Labour and Social Affairs	102	242	258	314	314	1,230
- Public Health	-	200	100	150	250	700
- Youth and Sport	-	-	100	200	250	550
- Public Education	50	200	250	250	250	1,000
- Habous and Islamic Affairs	2,309	2,000	1,000	1,000	-	6,309
- Government General Secretariat	120	30	-	-	-	150
- Exchequer	2,847	1,000	1,000	110	-	4,957
- Secretary of State for Planning and Training Senior Grades	300	1,400	9,850	2,650	1,800	16,000
- Departmental buildings	300	400	300	-	-	1,000
- Specialised studies	-	1,000	9,550	2,650	1,800	15,000
- Public Works	441	150	-	-	-	591
- Trade, Industry, Mining, Craft-Industries, Merchant Marine and Fishing Fleets	164	-	-	-	-	164
- National Defence	5,760	-	-	-	-	5,760
GRAND TOTAL	56,176	58,176	37,301	23,815	20,233	195,701